

IN THE
United States Circuit Court of Appeals
FOR THE NINTH CIRCUIT

No. 11642

REFRIGERATION ENGINEERING, INC., a Corporation,
Appellant,
vs.

YORK CORPORATION, a Corporation,
Appellee,
and

YORK CORPORATION, a Corporation,
Appellant,
vs.

REFRIGERATION ENGINEERING, INC., a Corporation,
Appellee.

BRIEF ON BEHALF OF YORK CORPORATION

MESERVE, MUMPER & HUGHES and
H. CALVIN WHITE,

By SHIRLEY E. MESERVE,
Attorneys for YORK CORPORATION,
Suite 615, 555 South Flower Street,
Los Angeles 13, California.

Of Counsel

ALEXANDER C. NEAVE,
CLARENCE D. KERR,
WILLIAM J. O'HEARN, JR.

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BRIEF ON BEHALF OF YORK CORPORATION

Plaintiff, York Corporation, brought this action January 8, 1945, seeking a declaratory judgment that the McAdam patent No. 2,219,393 was invalid and that plaintiff did not infringe any of the fourteen claims of this patent. In its answer defendant*, Refrigeration Engineer-

* Since there are cross-appeals and reference to the parties as "plaintiff" and "defendant" tends to some confusion, we will refer to the plaintiff as "York" and to the defendant and patent owner as "Refrigeration."

Emphasis in quotations is ours unless otherwise stated.

ing Incorporated, the patent owner, included a counterclaim charging infringement of the McAdam patent by York, to which York filed an answer, denying validity and infringement.

Jurisdiction of the Court under the Declaratory Judgment Statute and the Patent Laws* is alleged in paragraphs I-VI of the Complaint (R. 2-3) and is admitted in paragraph I of the Answer (R. 7).

The trial was conducted before Judge Peirson M. Hall in the United States District Court for the Southern District of California, Central Division, from September 17 to 26, 1946. The next day the trial judge delivered his opinion orally from the bench, immediately following oral arguments by counsel for York and Refrigeration, and without benefit of briefs, adjudging Claim 13 of the McAdam patent valid and infringed and all other claims invalid.

The Court's entire opinion was as follows (R. 12):

"The Court: From the evidence, and from the law, as I understand it, I think that claim 1 is void, and 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, and 14. I think 13 is the only claim which has the entire combination for constantly maintaining temperatures in a room below the freezing point of water, and is valid, and that will be the judgment of the court.

"As to infringement, I think that I will have to hold that the patent was infringed by the plaintiffs, because if you are correct in your contention concerning infringement, then no claim of the patent would be valid, and I have held claim 13 valid, because it is the only claim which describes all of the elements of the combination. For that reason I will hold that the patent has been infringed."

Both parties submitted proposed findings of fact, conclusions of law, and judgments, and Judge Hall adopted *verbatim* those of Refrigeration (R. 13-26). Both parties have appealed from Judge Hall's decision (R. 27-28).

* The pertinent portions of the statutes are printed in the Appendix, pages 77-80.

York's Statement of the Case

The McAdam patent (R. 1428-32) is for a device or apparatus. It is for a combination of old elements. These elements consist of cooling apparatus; means for spraying water over the cooling coils to remove the accumulated frost on the coils; pipes and valves for bringing in and draining away the defrosting water; all in combination with the room or space which the cooling apparatus serves to refrigerate.

It is admitted by Refrigeration that all of the parts of the apparatus patented are old and that therefore the invention, if any, must reside in the *combination of those old parts* (R. 259).

It is York's position that

(1) All of the claims of the McAdam patent are invalid for anticipation and for lack of invention

(a) because of five instances of prior public knowledge and use, and one instance of prior public knowledge and sale, of the same combination of old parts (*infra*, pp. 18-45):

The Gayley prior public use installations at
Pittsburgh, Chicago and Mayville, Wis.;

The Polar Ice and Fuel Company sale at Indianapolis;

The Swift & Co. installations at Elmira, N. Y.;
and

The Trullinger & Eustice installation at Yamhill, Oregon;

(b) because of prior patents and publications showing the same combination of old parts (*infra*, pp. 50-52).

These points are raised in the complaint (R. 3-5) and in York's Points 1, 7-12, 15-19 on appeal (R. 1109-13).

(2) All of the claims are invalid for lack of invention, and since all the elements in the combination perform their old functions in their normal and well-known manner (Point 3, R. 1109), the claims are invalid because they are merely for an aggregation of old elements.

(3) If, as contended by Refrigeration, the only distinguishing feature between McAdam's device and the prior devices is that the latter were not used in below freezing temperatures, then his alleged invention would lie merely in the new use of an old apparatus, which is not patentable (Point 3, R. 1109).

(4) Refrigeration is barred from relief in this suit because it has "misused" the McAdam patent in an effort to control competition in unpatented devices (R. 1053-63).

(5) York denies infringement (R. 10; Point 2, R. 1109) on the ground that, even if valid, none of the claims of the McAdam patent is infringed because York has not sold the entire combination of any of the McAdam claims. York has sold neither the "refrigerated space" nor "finned coils" nor "an electrically operated valve means", which are important elements of the combination.

Specification of Errors

The District Court erred:

1. In sustaining the validity of claim 13*, and in not holding all the claims invalid

a) because of the six instances of prior public knowledge, use or sale proved by the depositions of twenty-five witnesses and many documents (*infra*, pp. 18-45), its Findings 20-47 and Conclusion 2 (R. 17-23) on this subject being wholly erroneous and not supported by evidence;

* See p. 7 *infra* for the text of claim 13.

b) because the claims were anticipated by the prior patents and publications (*infra*, pp. 50-52), its Findings 17 and 19 to the contrary being erroneous;

c) because there was no invention in the combination claimed in view of the state of the art (*infra*, pp. 56-67), its Findings 6-10 and 18 to the contrary being based upon meager and incompetent testimony against the great weight of the testimony of eighteen witnesses; its Findings 11-16 in regard to commercial success not being warranted by the evidence (*infra*, pp. 59-67).

2. In holding claim 13 valid because it "has the entire combination for constantly maintaining temperatures in a room below the freezing point of water," (R. 12) and ignoring the fact that Refrigeration was estopped from urging that such limitation existed (R. 1368, 1372, 1408-9, 1413-4); and in any event it erred in not holding that such limitation imparted no patentability to the claim.

3. In reaching a conclusion of infringement of claim 13 (Conclusion 4, R. 23):

a) by misapprehending York's argument of non-infringement, the Court stating "I will have to hold that the patent was infringed by the plaintiffs, because if you are correct in your contention concerning infringement, then no claim of the patent would be valid, and I have held claim 13 valid * * *" (R. 12);

b) by failing to appreciate and in not finding that York did not sell the "refrigerated space," nor "finned coils" nor "an electrically operated valve means," which are important parts of the patented combination, and that therefore it did not sell the apparatus of the patent and could not infringe claim 13 (*infra*, pp. 12-13, 67-68);

c) by failing to make any finding of fact as to what devices York sold, or any finding to support its conclusion of infringement of claim 13.

4. In denying York's motion to amend its complaint to include the charge and defense of misuse by Refrigeration

tion of its patent (R. 1063), and in not finding that Refrigeration did misuse its patent and was therefore barred from recovery in this suit (*infra*, pp. 69-74).

5. In its Conclusions 5 and 6 (R. 23), in granting Refrigeration costs and counsel fees and in not dismissing Refrigeration's cross-complaint and granting the prayers of York's complaint.

I. The McAdam Patent

Before discussing the McAdam patent, the cycle of operation of a refrigeration machine will be described. A refrigeration machine of the type shown in the McAdam patent gets its cooling effect by allowing a volatile liquid having a low boiling point to evaporate in the refrigerating or "evaporator" coils. This action of changing state from liquid to gas absorbs heat so that the coil becomes cold. A "compressor" continually takes this gas away so that more liquid will evaporate. The compressor compresses the gas so that it may be turned back to the liquid state in the "condenser." The liquid is then returned to the "evaporator" coil to vaporize and resume the process of absorbing heat (R. 988, 990).

Since the evaporator coils are at a low temperature, the moisture contained in the air of the refrigerated space which passes over the coils condenses on the coils, forming frost. The frost, acting as an insulator, impairs the efficiency of the coils and must be periodically removed.

What McAdam claims as his invention is an *apparatus* consisting of a refrigerated space, evaporator coils, and a supply conduit to conduct water to a spray head from which it is sprayed over the coils, and a drained drip pan to conduct the sprayed water out of the refrigerated space. McAdam provided in the supply conduit at a point outside the refrigerated space an ordinary "three way" or "stop and waste" valve which allowed water to enter the pipes and, upon closing the valve, allowed the water in that part

of the supply conduit which was inside the refrigerated space to drain back through the valve.

The operation of the McAdam apparatus may be best understood by referring to the patent drawings (R. 1428). The "three way" valve is shown at the left of Fig. 2. In the position shown in the drawing the valve is seated so as to shut off the drain port 19 and leave the other two ports 20 and 21 open, which allows the supply water to enter the valve at port 21, leave at port 20 and flow through the inclined supply conduit 17, to the pan 14. The water then flows through the perforations 15 in the bottom of the pan and runs over the coil 5. Water at any temperature above freezing will serve to cause the frost and ice to melt from the coil. The melted ice and water collect in the drip pan 8 below the coil 5 and waste through the inclined drain pipe 12. When all the frost has been removed from the coil, the water is shut off by adjusting the valve stem 25a so that the port 21 is closed and port 19 is opened. Water remaining in the spray pan 14 and the supply conduit 17 is then free to drain back through the conduit 17a. During the defrosting operation the fan 6 and the compressor are stopped.

Claim 13, the only claim held valid, is as follows:

13. In combination with a *refrigerated space*, a *coil* adapted for periodic defrosting, a *spray-head* positioned to distribute water over said coil for defrosting thereof, a *fan* to move air of said space over said coil adapted to be discontinued during defrosting periods whereby the air of said space does not rise above the freezing point of water during the defrosting period, a *drip pan* disposed below said coil to receive water and ice gravitating from said coil, a *self-draining conduit* leading from said drip pan to points remote from said space, and an *inclined water supply conduit* leading from a point remote from said space to said spray-head; said water supply conduit at said remote point provided with an opening normally open to the atmosphere [through a valve] whereby the conduit and spray-head re-

spectively are self-draining, and *means* [a valve] *for periodically supplying water* to said supply conduit during period when said fan is inoperative.

The other claims vary slightly in language, but they are all for an apparatus consisting of a combination of old parts.

As will be seen from claim 13, and as admitted by Refrigeration's patent expert Doble (R. 260), the patent is for an "apparatus", a device, and not for a method or a manner of using an apparatus. It is for the mechanism itself.

Part of that mechanism consists of a concentrated refrigeration coil with a fan to blow the air through the coil. This type of compact blower refrigeration unit was not new with McAdam (R. 1430, col. 1, ll. 22-9; 258); York sold many of such blower units long prior to McAdam (R. 997-9; Plff's Ex. 106, R. 1301-2, showing photographs of such units).

Another part of that mechanism is the means for defrosting the coil. McAdam was not the first to introduce defrosting means in a blower type unit, for the blower type units sold long prior to McAdam had various forms of defrosting either by means of warm air circulated over the coils (R. 1008-9), or warm gases introduced into the coils from the compressor (R. 1018), or by spraying over the coils in a continuous or intermittent stream water containing a salt solution (R. 1016), the salt aiding to dissolve the frost (R. 1022). In those instances where the water was recirculated from a pan directly beneath the unit and within the refrigerated space the salt solution kept the water lying in the pan from freezing (R. 1036).*

Nor can it be claimed that the idea of plain water defrosting was new with McAdam. That ordinary tap water

* These forms of defrosting are still by far the most commonly used; only 11% of the units sold by York since 1940 use water defrosting (R. 1032). Refrigeration, which specializes in water defrosting, sells only 40% of its coils with water defrosting (R. 1093). The type of defrosting used is an engineering matter depending upon the nature of installation, kind of refrigerant used, and product to be refrigerated (R. 1020, 1021, 1024).

contains enough heat* to melt ice and frost from refrigeration coils was known long prior to McAdam by every housewife who ever poured water over the coils in a household refrigerator in order to remove frost. And that such water could be used in a below freezing atmosphere without itself being lowered below the freezing point was also known prior to McAdam. This is disclosed in at least two prior patents (Wenzl, R. 1271; Jensen & Roser, R. 1279, *infra*, pp. 51-2), and water was thus used in the instances of prior use and sale proved in this case by deposition (*infra*, pp. 16-47).

There is nothing surprising about the fact that ordinary tap water can be so used. A single drop of water resting upon a coil many degrees below freezing would undoubtedly freeze within a short time because of its small heat content. But when a considerable quantity of water is sprayed over a coil, the amount of heat available is greatly multiplied and the water is continuously in motion and does not remain in contact with the coil for more than a moment or two. The water is then drained immediately to the outside of the refrigerated space. The water does not freeze because no given quantity of water is within the refrigerated space long enough for its temperature to be lowered below its freezing point (R. 272, 1031).

But McAdam does not have a patent for defrosting with water in a below freezing atmosphere. Claims broadly covering the *method* of thus defrosting were asked for and *cancelled* during the prosecution of the McAdam patent in the Patent Office (R. 1342-3, 1414) and therefore no contention can be made that such a method is covered by the patent.

As stated above, McAdam's patent is for an *apparatus*—a mechanical device which consists of a combination of old

* "Heat", "warm" and "hot" as used in this connection do not necessarily connote a high temperature. Any temperature above that of the coil would constitute the application of heat, and any temperature above the freezing point of water would be sufficient to melt the frost (R. 1008).

parts. Claim 13 is for a coil, a spray head, a fan, a drip pan with a self draining conduit, an inclined conduit to supply the spray water, valve means to let water in and to drain the water back out of the conduit; all of this in combination with a refrigerated space.

These elements were all old and it was old to use them for the very purposes for which they are used in this combination. As we shall see, a fan refrigeration unit with a water defrosting header and supply and drain conduits, was old in both the patented and practical arts (*infra*, pp. 16-52); and it was old to use a valve in a water supply conduit which opened and shut off the supply of water, and allowed the water ahead of the valve to drain back through the valve when it was closed (*infra*, p. 52). Such valves are called "three-way" valves (McAdam patent, R. 1431, col. 1, l. 9) or sometimes "stop and waste" valves. The use of such valves was common plumbing practice to drain all pipes in periodically unheated houses which might be exposed to below freezing temperatures (R. 431, 464; Plff's Ex. 102, R. 1296-7). And such valves were used in connection with water defrosting units (*infra*, pp. 29, 36, 41).

And finally it was old to use all of these parts in combination with a refrigerated space. After all, the whole purpose of the unit was to refrigerate a space, and the prior patents and prior uses show that such units were so used.

A. Refrigeration's Position as to the Alleged Invention.

Since York proved conclusively by prior patents and the depositions of twenty-five witnesses that water defrosting was old, and that the combination of the elements of the claims *as written* was anticipated, Refrigeration took the position that the "refrigerated space" mentioned in the claims should be interpreted by reference to the specification to mean a space "*maintained at all times below the freezing temperature of water*" (R. 278).

Its proofs in support of the patent and its arguments to distinguish the prior art were based upon this position. Its patent expert Doble stated on cross examination (R. 277-9):

“Q. Now, isn’t it a fact, Mr. Doble, that none of the claims excepting claim 10, 11 or 13 mention anything about temperatures?”

A. Temperatures,—in what respect?

Q. Well, as to whether the refrigerated space is above or below freezing.

A. Yes, they do. I will refer to claim 1. Claim 1 states,

‘In combination with a refrigerated space.’

“Now, to understand what that means, we turn to the first two paragraphs in the patent, appearing on page 1, starting at line 1, reading:

‘My invention relates to low temperature refrigeration where a space is required to be constantly maintained at temperatures below the freezing point of water,’—that is very, very definite—‘and the invention relates more particularly to methods and devices for defrosting the coils or heat transfer surfaces used in maintaining such conditions.’

“We have got to maintain that sub-freezing condition.

Q. Yes.

A. Now, wait a minute. I haven’t finished.

Q. Oh, I am sorry.

A. This is the second paragraph starting in at line 8:

‘Where the air which is being recirculated over these low temperature surfaces never rises above the freezing point of water periodic defrosting under maintained low temperature conditions has presented many problems.’

“And that was his problem, how to meet that condition and solve it, and that is what McAdam solved. Continuing the reading of that paragraph:

‘It is an object of this invention to provide simple [356] and highly effective means for so defrosting.’

“That definition clearly defines the temperature at which these combinations are to be used, and *defines clearly that the refrigerated space is to be maintained at all times below the freezing temperature of water.*

Q. So that you are interpreting the term ‘refrigerated space’ in the claim from the specifications?

A. You have to. You always interpret the elements in the claims from the specifications. You know that.

Q. You won’t say ‘Yes’ to that? A. I have no objection to saying ‘Yes,’ if you ask a question so that I can say ‘Yes.’

The Court: And so long as you can say ‘but.’

Q. By Mr. Neave: Now, Mr. Doble, apart from that phrase ‘in combination with a refrigerated space,’—apart from that phrase, taking claim 1, the rest of the claim are elements of an apparatus; isn’t that true?

A. Yes.

Q. That is the refrigerating apparatus?

A. Yes, *but that apparatus has to be used in combination with a refrigerated space.* Otherwise, there is no problem.”

B. York’s Position.

It is York’s position that

(a) if the alleged invention is, as Refrigeration contends, for the combination of the old parts with the old refrigerated space continuously maintained below freezing, then

1. The patent is invalid because such combinations existed in the prior practical art and the prior patented art; because even if this were not so, there is no invention in combining old elements to produce an old and expected result; and because a new use of an old device is not patentable;

2. the patent is not infringed by York, because there is no evidence that York made, used or sold a below freezing refrigerated space, an essential ele-

ment of the invention; in fact there is no proof that York made, used or sold *any* refrigerated space.

(b) Refrigeration can not successfully contend that the "refrigerated space" of the claims means "a refrigerated space always maintained below freezing".

1. Refrigeration is estopped from so claiming in view of the prosecution of the McAdam application in the Patent Office.

Refrigeration asked for claims in which the term "refrigerated space" was qualified by the phrase "the air of which is continuously maintained at a temperature below the freezing point of water". The Patent Office Examiner, in rejecting the originally numbered claims 1-14, stated (R. 1368):

"... Applicant has attempted by amendment to differentiate his claims over the prior art cited by stating that his device *continuously* maintains a freezing temperature below the freezing point of water. However, such limitation is immaterial in so far as patentability is concerned since practically all refrigeration systems continuously maintain a predetermined temperature which may be above 32° or below 32° depending upon the particular requirements placed upon the system. However, such regulation or particular degree of temperature maintained is not of patentable import." (Examiner's emphasis.)

Subsequently Refrigeration, in response to such holding, cancelled the limitation that the air of the refrigerated space "is continuously maintained at a temperature below the freezing point of water" from all the original claims where it occurred, stating that its action was "in accord with the Examiner's statement, *with which applicant agrees*, that any refrigerated space is apt to go below the freezing point of water" (R. 1372). A similar limitation was also cancelled from the first part of the later added present claims 10, 11, and 13 (R. 1413, 1414).

Having complied with the requirement of the Examiner to cancel the sub-freezing limitation, Refrigeration, as the owner of the McAdam patent, cannot now assert that the sub-freezing limitation is validly a part of any claim of the patent, by implication or otherwise.*

A limitation either added to, or subtracted from, the claims during the pendency of an application in the Patent Office may not be later ignored when construing the claims either to narrow the claims to avoid a prior art reference or to broaden the claims to cover an alleged infringing device. The Supreme Court stated in *Schriber Co. v. Cleveland Trust Co.*, 311 U. S. 211 at pages 220-1:

“It is a rule of patent construction consistently observed that a claim in a patent as allowed must be read and interpreted with reference to claims that have been cancelled or rejected, and the claims allowed cannot by construction be read to cover what was thus eliminated from the patent.”

And at page 221:

“True, the rule is most frequently invoked when the original and cancelled claim is broader than that allowed, but the rule and the reason for it are the same if the cancelled or rejected claim be narrower.”

* Nor can claims 10, 11 and 13 be distinguished over the prior art because they still contain uncanceled a clause specifying discontinuing the fan during the defrosting period “*whereby* the air of said refrigerated space does not rise above the freezing point of water during the time required for defrosting.” *Frank F. Taylor Co. v. Wisc.* (D. C. S. D. Ohio, 1933) 5 F. Supp. 918, at page 924:

“The addition of a ‘whereby’ clause to a claim calling for an otherwise old structure does not render the claim patentably novel. *Electro-Dynamie Co. v. Westinghouse Electric & Mfg. Co.* (C. C.) 191 F. 506, 508.”

To the same effect:

Gynex Corporation v. Dilox Institute of Feminine Hygiene Inc., (2 Cir., 1936) 85 F. 2d. 103, 105.

To the same effect: *Morgan Envelope Company v. Albany Paper Company*, 152 U. S. 425, 429 (1894); *Gasair Corporation v. Ransome Company*, (9 Cir. 1944) 140 F. 2d 818, 819.

2. Refrigeration's contention is also untenable because in effect it turns apparatus claims into method claims. As already stated, method claims were abandoned during the prosecution of the McAdam application and can not now be recaptured.* It follows from Refrigeration's argument that when the parts of the combination are used with a refrigerated space one degree below freezing that combination is an infringement, but when the temperature of the space rises one degree above freezing, those very same mechanical parts no longer constitute an infringement. But an apparatus can not be a patented one at one instant, and the very same structure not patented the next moment. Therefore Refrigeration's contention must be that the alleged invention is not an apparatus, a combination of physical parts, but must reside, if at all, *in their manner of use*. However, McAdam was not granted any patent for a manner of use or a method (R. 260), and Refrigeration can not interpret the claims to recapture what was abandoned.

C. The Opinion and Findings of the District Judge

The two-paragraph opinion of the District Judge, handed down from the bench the day after the conclusion of testimony and without benefit of briefs after trial, indicates that the Court sustained claim 13 under a misapprehension as to the nature of the patent and its Patent Office history.

In stating that claim "13 is the only claim which has the entire combination for constantly maintaining temperatures in a room below the freezing point of water", and that "I have held claim 13 valid, because it is the only claim which describes all of the elements of the combination" (R. 12), the Judge fell into the error of reading into the claim a limitation of "constantly maintaining temperatures in a room below the freezing point of water". This was error

* *Supra*, page 9.

because such a limitation was specifically abandoned during the prosecution of the McAdam application (*supra*, pp. 9, 15; R. 1372, 1413, 1414) and therefore can not now be claimed. The Court also erred because it apparently thought the nature of the invention was a manner of use—a method, “constantly maintaining temperatures in a room below the freezing point of water”,—when such is not the fact as the claims are apparatus claims, and can not be interpreted as method claims, especially since method claims were abandoned during the prosecution and cannot now be recaptured (*supra*, pp. 9, 15; R. 1342-3, 1414).

The opinion does not discuss or even refer to any of the evidence of prior patents or of prior uses, or to any of York’s defenses.

The District Court held the patent infringed “because if you [York’s counsel] are correct in your contention concerning infringement, then no claim of the patent would be valid” (R. 12). Just what the Court meant by this statement is not clear. At all events, it is obvious that the District Judge did not understand York’s argument of non-infringement.

Findings were submitted by both parties, the Court signing those submitted by Refrigeration *without any change*, except changing the date from October 1946 to March 24, 1947 (R. 23). As we shall see, the Findings are not supported by the evidence.

II. The McAdam Patent Is Anticipated.

The parties have stipulated (R. 295) that the date of conception of the McAdam device is September, 1937. Any device meeting the claims of the McAdam patent and sold or used or described in a publication prior to that date anticipates the patent and thereby invalidates it.

York introduced into evidence the depositions of twenty-five witnesses whose testimony establishes six instances of the prior manufacture, use, sale and knowledge of water defrosting apparatus each of which anticipates

McAdam's device. In each instance the witnesses produced were those who had the best knowledge of the apparatus and its operation, and their testimony was supported by 73 documents. Refrigeration called no witnesses with respect to these uses except one witness who in fact confirmed the existence and use of one of the devices (R. 1073-90).

As we shall show, the findings of the Court below that the patent was not anticipated by these prior uses and sales are not supported by the evidence and should be disregarded.

*In this case there is not the usual presumption in favor of the findings of a lower court because here the testimony was in the form of depositions and the witnesses, with one exception, were not before the District Court.** This Court said in *Paraffine Companies v. McEverlast, Inc.*, (9 Cir. 1936) 84 F. 2d 335, at page 339:

“The evidence presented by the defendant on this issue was all in the form of depositions. Hence there is no presumption in favor of the trial court's findings thereon. *Rown v. Brake Testing Equipment Corp.* (C. C. A. 9) 38 F. (2) 220, 223.”

And more recently this Court said in *Western Union Telegraph Co. v. Bromberg*, (9 Cir., 1944) 143 F. 2d 288 at page 290:

“Mr. Bromberg's testimony was by deposition, hence, the appellate judges are in as good a position to weigh his evidence as was the trial judge.”

* Also, at the request of the District Court (R. 354-5), many of the depositions were not read, but were summarized and copied into the Record. (R. 432, 433, 435, 470, 538, 576-579, 591-592, 607, 635, 644-6, 698-699, 745.)

A. THE GAYLEY SYSTEMS.

The first uses of water to defrost in point of time were in connection with the Gayley dry blast systems which were in use at the Isabella Furnaces of the Carnegie Steel Co., Pittsburgh (Etna), Pa., from 1906-1921 (Plff's Ex. 2-A, R. 1118, R. 314); at the South Works of the Illinois Steel Co., South Chicago, Illinois, from 1907-1912 (R. 505-6); and at the Northwestern Iron Company, Mayville, Wisconsin, from 1909-1928 (R. 592-3). The purpose of Gayley's dry blast system was to cool and thereby dehumidify the air which was to be delivered to the blast furnaces of the above steel plants. To do this, in each case, the air was blown by means of a huge fan through a refrigerator building which was divided up into separate rooms or chambers, each chamber containing many thousands of feet of cooling coils which were cooled by pumping through them cold brine. The moisture which was withdrawn from the air as it passed through the chambers was deposited on the coils in the form of frost or ice and this was removed from the coils by means of water sprayed over the coils from headers positioned over them, the melted frost and water being drained from the pan-shaped bottoms of such chambers by means of floor drains (R. 314-6, 324, 506-11, 594).

Each of these installations was defrosted in much the same way. The air which was being blown through the building by means of the *fan* was cut off from the chamber which was to be defrosted by closing shutters in the basement and at the top of the chamber (R. 318, 508, 594). This is equivalent to shutting off the fan in McAdam's device. After the cold brine had been withdrawn from the coils*, the water was turned on and allowed to *spray* over the coils until all the ice and frost had been removed. The water was then shut off and a *drain valve* was opened which was so placed in the inclined water supply conduit that all

* Cooling is likewise discontinued in McAdam during defrosting by stopping the compressor (McAdam patent, p. 3: 1st col., lines 43-49; 2nd col., lines 37-68.)

the water left inside the refrigerated space would drain to the outside (R. 389, 510, 595). The cold brine was then pumped back into the coils and the chamber put back in operation by opening the shutters and allowing the air once more to be blown over the coils (R. 320, 510-1, 597).

All these Gayley installations were operated at sub-freezing temperatures substantially all the time (*infra*, pp. 25-28).

1. Pittsburgh

The drawing on the left of Plaintiff's Exhibit 1 (R. 1117) reproduced opposite page 18, shows an end elevation of the refrigerator building of the Dry Blast Plant at the Isabella Furnaces in Pittsburgh. At the extreme left of the drawing is the water supply for defrosting labeled *6" Water Main* with the inclined water supply conduit marked *6" Pipe* (colored yellow in this brief) leading upward into the compartment, where it feeds into a header, colored red, labeled *6" Water Header*. Extending from this header out over one of the chambers filled with brine coils is a pipe, also colored red, labeled *Water Spray 2" Pipe*. At the extreme left and at the bottom of the vertical pipe is a valve labeled *6" Gate Valve* which controlled the supply of water to the spray pipes. Just above the gate valve in the vertical pipe is another valve labeled *1" Drain Valve* (colored purple), which was opened to drain the pipes immediately after the supply of water was shut off, and left open until the next defrosting period, thus providing an opening in the supply conduit at a point remote from the refrigerated space which was normally open to the atmosphere. Upon opening the drain valve the weight of the water in the vertical supply pipe (colored yellow) would cause a siphon action which would drain all the water in the header and spray pipes (colored red) regardless of whether they were horizontal or pitched (see R. 1360-1). The drawing does not show a floor drain, but it is apparent from the fact that the floor is pitched that such a drain was provided.

Thus there are present all of the elements of McAdam's device and in precisely the same combination. The general operation has already been described. In the patent the fan is turned off; similarly in the Pittsburgh use the doors were closed at the bottom so that the air to be cooled would not pass between the coils of the chamber being defrosted into the refrigerated space. In the patent the refrigeration is stopped; in Pittsburgh, for the same purpose the brine was removed from the coils; in the patent and in this prior use a valve is turned admitting water through pipes so that it sprays over the coils until all frost is removed, when the water valve is closed and the drain valve opened, draining all water from the defrosting system. And in both devices the refrigeration is then restored and the air allowed to pass through the coils again, in the patent by starting the fan, in the Pittsburgh prior use by opening the doors at the top and bottom of the chamber (R. 318-320; 363-365; 386-390).

The witnesses who testified to this prior use were the following:

Frank C. Bauer (R. 298), Chief Engineer of the plant, who produced and identified plant drawings (Plff's Ex. 1, R. 1117) and contemporaneous letters about the operation of the defrosting mechanism (Plff's Ex. 2A-6B, R. 1118-24).

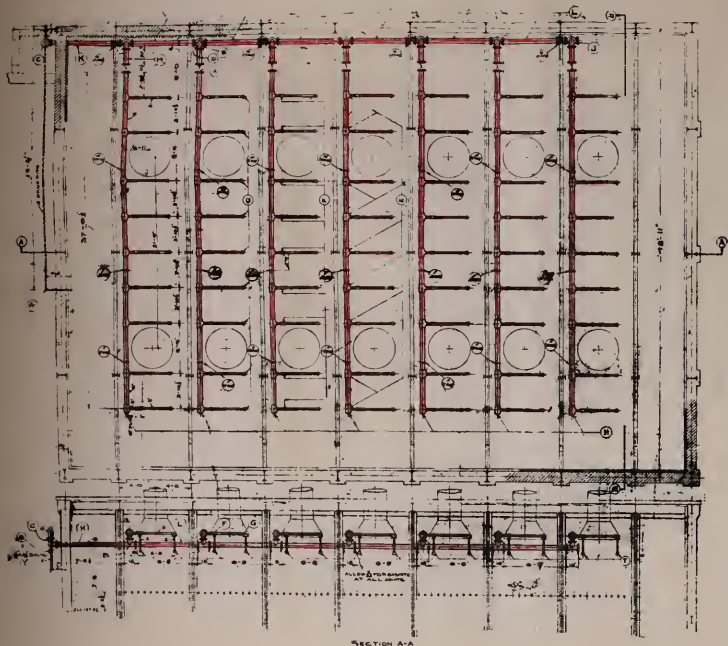
A. Raphael Kernan (R. 309), in charge of plant employment records, who testified as to dates of employment of the witnesses named below.

Jesse O. Brandt (R. 313), operator and engineer of the Dry Blast Plant, which included the defrosting system, from 1909 until 1921.

Edward G. Kennedy (R. 361), who ran the Dry Blast Plant from its inception until 1915.

Edward Harkins (R. 384), who was the defrosting operator or "coil tender" in 1915, described exactly what operations he went through in defrosting.

PLAN VIEW OF REFRIGERATOR BUILDING AT CHICAGO.



The testimony of these witnesses establishes clearly the structure and operation of this Dry Blast Plant in Pittsburgh for a period of fifteen years from 1906 to 1921. Considering the fact that this operation started over thirty years ago, their testimony is remarkably clear and definite. Their recollection was supported by blue prints of the plant contemporaneously made in 1906 (Plff's Ex. 1, R. 1117) and letters written in 1906 by Bob Taylor to the Chief Engineer, Bruce Walter (R. 301), describing the water defrosting (Plff's Exs. 2-6B, R. 1118-1124). As Taylor wrote in 1906, "Water is certainly fine for thawing for the pipes are just as clean now after thawing as the day they were put in" (Plff's Exs. 6-A, B; R. 1123).

Refrigeration produced no witnesses concerning this prior use.

2. Chicago

The construction of the defrosting pipes in the Refrigerator Building of the Dry Blast Plant of the Illinois Steel Company's South Works in Chicago, installed in 1907, is shown in Plff's Ex. 31 (R. 1153) the upper left portion of which is reproduced opposite page 20 of this brief. Shown in the reproduction is a 6" water supply main (colored yellow outside and red inside the Refrigerator Building) extending along one side wall above the level of the top of the brine coils. A 6" distributor line (colored red) extended into each of the seven chambers above the level of the supply main, with 3" branch lines extending laterally over the coils from each distributor line. Two 2" *spray heads* hung downward from each branch line as will be seen in the section at the bottom of the page. There was a valve marked (A) in each of the seven distributor lines so that water could be supplied to each compartment individually.

In the upper right hand part of Plff's Ex. 31 (R. 1153) which is reproduced opposite page 22 is an elevation view of portions of the Compressor Building, Brine Cooler Building and Refrigerator Building showing the 6" water

supply main (shown in yellow) as it came from the Compressor Building and entered the Refrigerator Building. Just before the supply main enters the Refrigerator Building there is shown a 2" *Drain Pipe* (colored purple) which was for the purpose of draining all the pipes inside the refrigerated space to the right immediately upon the shutting off of the supply of defrosting water (R. 510, 580). This corresponds to the element of the claims calling for an opening in the supply pipe at a point remote from the refrigerated space normally left open to the atmosphere (R. 511). Upon opening this drain, the weight of the water in the supply pipe would cause a siphon effect which would drain all the water from the pipes inside the Refrigerator Building regardless of whether they were pitched or horizontal.

This apparatus for water defrosting, which existed long before McAdam's alleged invention, thus includes all of the elements of McAdam's apparatus in the same functional relationship.

The operation of this defrosting system in Chicago was the same as that at Pittsburgh and therefore will not be described again. Its mode of operation as well as its structure was similar to the later disclosure in the McAdam patent.

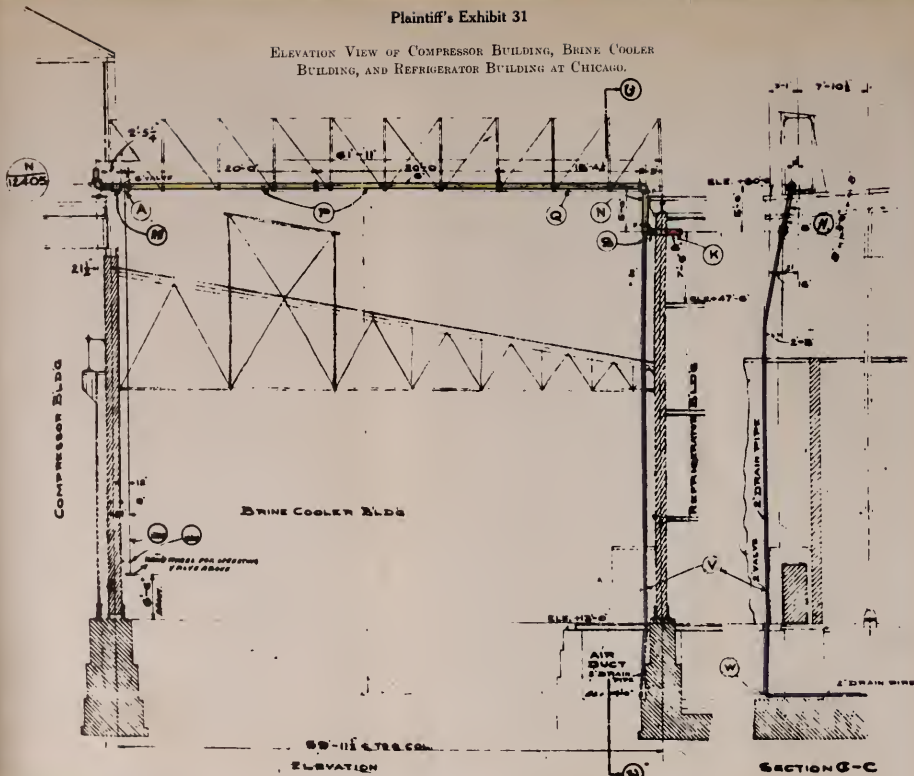
The witnesses who testified as to this prior use were:

Herman L. Lietz (R. 568), assistant Chief Engineer of the South Works at Chicago, who produced and identified the photograph of the outside of the refrigeration building (Plff's Ex. 30, R. 1152), and the contemporaneous drawing of the piping (Plff's Ex. 31, R. 1153).

Nicholas L. Tominac (R. 505), who had charge of defrosting the Dry Blast Plant from 1907 until 1912.

Albert Gaide (R. 539), who erected the refrigeration machinery and was the engineer in charge of one shift of the operation of that plant from 1907 to 1911.

ELEVATION VIEW OF COMPRESSOR BUILDING, BRINE COOLER BUILDING, AND REFRIGERATOR BUILDING AT CHICAGO.



Alfred E. Mueller (R. 573), who was the engineer in charge of the other operating shift in 1908 and 1909.

The last three men had intimate knowledge of this Chicago plant's defrosting equipment, and its operation from 1907 until 1912. Their testimony was supplemented by construction drawings showing the defrosting system (Plff's Ex. 31, R. 1153) and 40 temperature charts (Plff's Ex. 32 and 33, R. 1154-1193) produced by Gaide and Mueller showing the temperature of the air after it had passed through the refrigeration chambers.

Refrigeration produced no witnesses concerning this prior use.

3. Mayville

The arrangement of water piping for defrosting as used at the Dry Blast Plant of the Northwestern Iron Co., in Mayville, Wisconsin, is shown on two drawings, Plff's Exs. 7 and 37 (R. 1125, 1205), the left hand portion of the latter being reproduced opposite page 24 of this brief. Before examining this drawing reference should be made to the figure to the left of Plff's Ex. 7, not reproduced in this brief but found at R. 1125, which shows the water supply conduit as it enters the building at the top right and extends over the brine coils where it is labeled "Water Pipe for Thawing." Extending downward from this supply conduit are several *spray heads*, or sprinklers. Also shown by this drawing is the fact that the floor of each compartment was pitched to a center floor drain.

The part of the drawing, Plff's Ex. 37 (R. p. 1205), reproduced opposite page 24 of this brief, is a plan view of the Refrigerator Building and the Pump House. The pertinent parts of this drawing were marked during the taking of his deposition by the witness Mueller, who left the Dry Blast Plant in Chicago in 1909 to go to work at the same type of plant in Mayville and was in charge of the operations at this plant during the entire period of its oper-

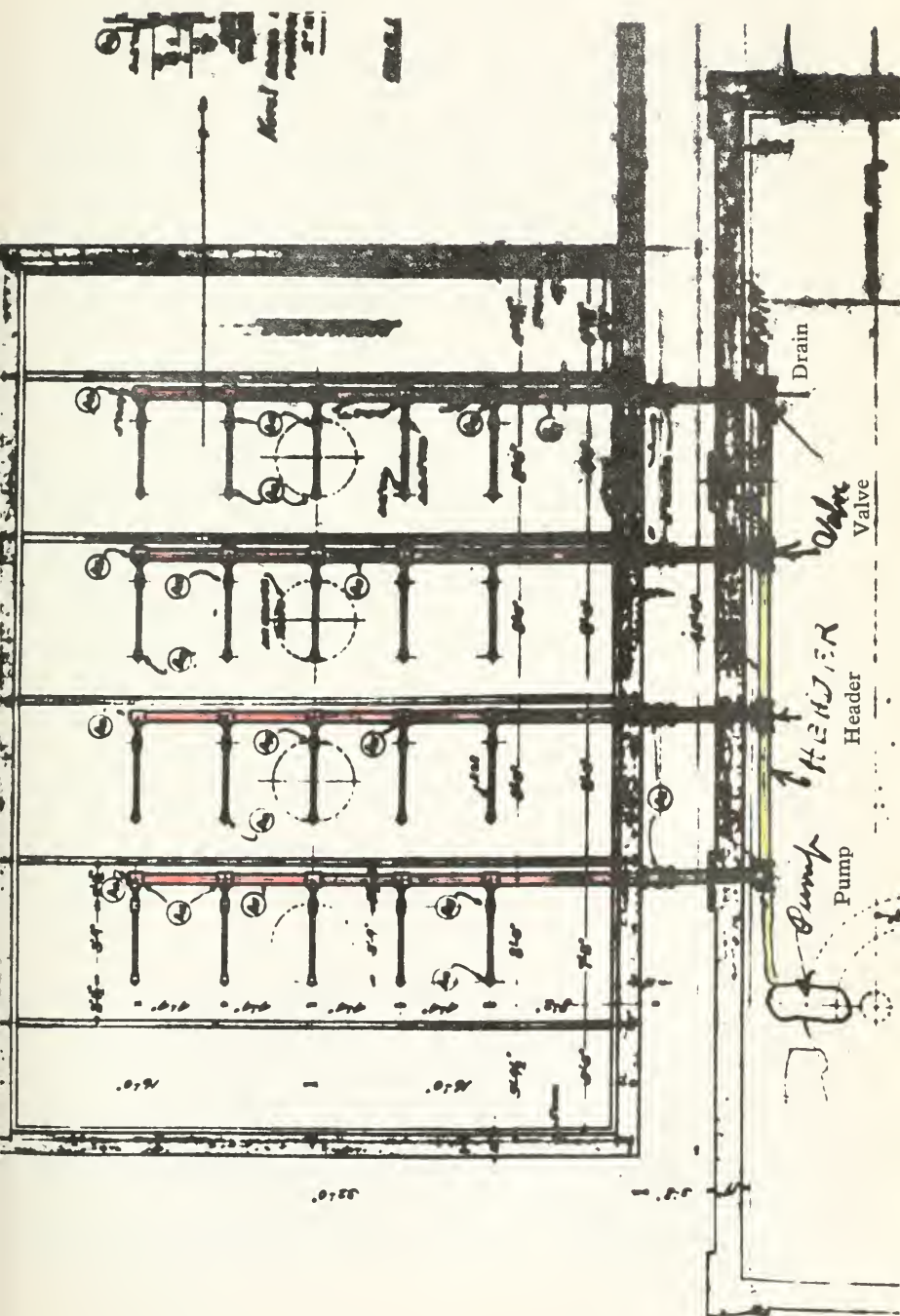
ation from 1909 until 1928 (R. 589, 593). The water for defrosting was drawn from a well by a centrifugal pump (R. 594), indicated on the plan of the Pump House, and supplied to a "Header" (colored yellow), which ran along the inside wall of the Pump House nearest the Refrigerator Building. Four supply conduits, one for each compartment of the Refrigerator Building, took off from this "Header," passed through the wall of the Pump Room and then travelled up the outside of and into the Refrigerator Building where they connected to the "*Water Pipe for Thawing*" mentioned above as being found in Plff's Ex. 7, and also shown in this reproduction of Exhibit 37 (colored red). In each of the supply conduits, where it took off from the "Header," was a "Valve" making it possible to supply water to one compartment at a time, and above each "Valve" was a "*Drain*" which was opened when the "Valve" was closed, thus allowing all water above the "Valve" and inside the Refrigerator Building to drain outside the refrigerated space (R. 600). This "Drain" was usually left open, except during the defrosting operation, so that in case the "Valve" leaked and water got into the supply conduit leading to a compartment which was not being defrosted, the water would drain instead of flowing into the compartment (R. 595). Thus there was an opening in the supply conduit normally open to the atmosphere.

The matter of drainage was also provided for in another way. Mueller, the man in charge, testified that the "Pump" was a centrifugal pump, and that when it was shut off, the weight of the water in the inclined supply conduit would cause the "Pump" to reverse itself and all the water in the supply conduit and inside the refrigerated space would flow back through the "Pump" and into the well (R. 595).

Refrigeration produced no witness to testify regarding this prior use.

REFRIGERATOR BUILDING AT MAYVILLE

(Plan View)



4. Gayley Systems Operated Below Freezing

TEMPERATURES EMPLOYED AT PITTSBURGH

Due to a flood which occurred at the Isabella plant at Pittsburgh (R. 342) no written temperature records are available with respect to the operation of that plant, but the witnesses, Brandt, Kennedy and Harkins, testified that the temperature inside the refrigerating chambers prior to defrosting was "below freezing all the time" (R. 319), "way under freezing" (R. 365), and "around 30, 28 or 30, sometimes far colder than that" (R. 391).

TEMPERATURES EMPLOYED AT CHICAGO

Temperature of the air at the top of the brine coils, just as it left the refrigerating chamber, was stated by Tominac as being "between 25 and 28 degrees Fahrenheit" (R. 514, 523). Mueller agreed that the temperature was below freezing, ranging from 20° to 34° F. (R. 581). This is substantiated by Plff's Ex. 32 (R. 1154-92) which is made up of 39 daily reports (produced by Gaide) of temperature readings taken hourly during the months of May, June, July and September 1910. The temperature of the air just after it had passed over the brine coils varied from 19° to 34° F. with the average well below freezing. Another report, in the handwriting of the witness, Mueller (R. 581), showed that the air as it left the coils averaged 25.34° F. and that the average outside air temperature during the same period was 67.666° F. (Plff's Ex. 33, R. 1193).

TEMPERATURES EMPLOYED AT MAYVILLE

Temperature reports of the Dry Blast Plant of the Northwestern Iron Company in Mayville, Wisconsin (Plff's Exs. 34, 35 and 36A to I, R. 1194-1204) some of which were made during June, July and August 1909 by Mueller, in charge of the dry blast plant at Mayville (R. 602-4), showed temperatures at the "Top of Coil" all below freezing (R. 604) and ranging from 20° to 31° F. During the same

period the outside air temperature as shown on these reports varied from 44° to 94° F. It is therefore entirely clear that the chambers were below freezing.

5. The Findings as to the Gayley Prior Uses.

Findings 21-27* relate to the Gayley prior uses. It is significant that not one of these casts any doubt upon the fact that water defrosting took place in each of the three prior uses. The findings are directed principally to two subjects: the position of the spray pipes, and the temperature of the coil chamber.

Finding 21 relates only to Pittsburgh and Chicago, not to Mayville, and states that it is not established that the systems were self-draining, but that, on the contrary, the supply and spray pipes were horizontally disposed. It does not follow that if the supply and spray pipes were horizontal they would not drain. As explained above (*supra*, pp. 20 and 22), the siphon effect caused by opening the drain valve in these systems would drain all the water out of the pipes, even though they were absolutely horizontal. The fact is, according to the uncontradicted testimony of five witnesses, that the systems, both at Pittsburgh and at Chicago, were self-draining (R. 335, 344, 373, 374, 389, 510, 580).

Findings 22-26 relate to the temperature of the coil chamber not being below freezing. This is contrary to the fact.

As already pointed out, the testimony as to the conditions at Pittsburgh indicates below freezing temperatures (R. 319, 365, 381) and the testimony and contemporaneous records prove this condition to have existed at Chicago (R. 514, 523, 581, 1154-93) and Mayville (R. 602-4, 1194-1204).

This operating condition existed during at least the first part of the defrosting cycle. Actually it is probable that during much of the defrosting cycle the chamber being defrosted remained below freezing because the relatively warm air from the outside was cut off, and the great mass of coils covered with ice would act as a refrigeration fly-wheel and have a large heat-absorbing capacity (R. 617-8).

* R. 17-18.

But whether or not the temperature of the chamber being defrosted rose above freezing during defrosting is in fact entirely immaterial. McAdam's "problem," if any, of introducing water into a below freezing zone for the purposes of defrosting was present in each of these three applications of the Gayley system at least at the beginning of the defrosting period. If the temperature rose above freezing later in the defrosting period, this is no more than would occur in McAdam's apparatus.

Also it is apparent that if a water pipe is to be subjected to a below freezing temperature at any time when the water is not running, it must be drained. The evidence referred to above establishes clearly that the chambers reached below freezing temperatures when in operation. The water supply pipes and spray heads in the Gayley systems were thus subjected to below freezing temperatures at least during the operating periods, and therefore the "problem" existed. It was solved by draining the pipes. The evidence is clear that the drainage means provided, namely valves and gravity, were the same as McAdam used, and were entirely successful because the systems never froze (Pittsburgh, R. 324, 369, 393; Chicago, R. 533, 585; Mayville, R. 604). There is no finding that such drain valves were not present.

Plff's Ex. 31, reproduced opposite page 20 of this brief, shows that the defrosting water main in the Chicago plant passed through the top of each of the seven separate chambers, six of which were being operated while the seventh was being defrosted. If, for example, the last chamber at the right of the drawing was being defrosted, the water would pass through the preceding six chambers which were at below freezing temperatures. Just as the water supply conduit passed into the below freezing refrigerated space in McAdam, so in this Chicago installation the supply conduit passed into and through the below freezing chambers that were in operation. And the water sprayed down on ice covered coils melted the ice, just as in McAdam. It was no "surprise" to the workers in the Chicago plant from 1908 to 1912 that ice could be melted with water, that running water could be taken through a below freezing

zone without freezing, or that the way to prevent water from freezing when it was not running was to remove it from exposure to freezing temperatures by draining it out.

Each chamber in the Gayley systems corresponds to the cabinet containing the coils in the McAdam patent. Any "problem" that existed in McAdam of spraying water over sub-freezing coils existed in the Gayley installations; any "problem" that existed in McAdam of bringing water through a freezing zone existed in Gayley as well; and any "problem" of water freezing when not in motion was present in the earlier installations as well. All these "problems" were solved in the three Gayley prior uses by using a sufficient volume of defrosting water and by draining the pipes when defrosting was complete.

These prior uses completely anticipate McAdam's patent.

B. THE POLAR ICE INSTALLATION

In the spring of 1934 Hayes Bros. Inc., of Indianapolis sold to the Polar Ice and Fuel Co. and installed at their retail ice station in Indianapolis, Ind., a blower type refrigerating unit similar to that described in the McAdam patent which was guaranteed to maintain a 30° F. temperature in the ice storage space (Plff's Exs. 13, 14, 15 and 16, R. 1127-33). On May 2, 1934 (Plff's Ex. 17, R. 1134) Polar wrote to Hayes Bros., complaining that the unit was unsatisfactory, because it did not maintain that temperature, and requesting that it be removed.

Shortly thereafter Joseph Hayes and Fred C. Barton, president and sales engineer respectively of Hayes Bros., inspected the installation and learned from Charles Martin, then operating the plant under lease from Polar, that he found it necessary to defrost the cooling coils by spraying them with a garden hose. Thereupon Hayes suggested that perforated pipes be installed over the coils in such a way that the coils could be periodically sprayed with water and that the necessary provisions be made for drainage (R. 407, 1143).

Mr. Hayes consulted Mr. Goldsmith, a patent attorney in Indianapolis, with regard to the patentability of the

apparatus and in a letter (Plff's Ex. 25, R. 1141) to his Washington partner, Mr. Galt, Mr. Goldsmith described the apparatus as disclosed to him by Mr. Hayes. The letter states in part (R. 1143):

“ . . . When the coils are sufficiently frosted and it is necessary to defrost, valve #1 [*refrigerant supply*] is closed, the fan is stopped and valve #2 (24) [*water supply*] is opened. This showers the coils and the supply pipe, headers, supply lines and nozzle discharge pipes are so proportioned that there is no restriction in the supply of water anywhere in the system. In other words, the full supply is completely and instantaneously discharged when valve #2 is opened and the *drain 26 is of such area it will carry off by gravity all the water supplied to the compartment 19*. This water passes thru the trap 27 and thence wastes at 28 . . . ”.

The actual installation at the Polar Ice plant, as testified to by Mr. Barton and Herbert Hayes, mechanical superintendent of Hayes Bros., who made the installation (R. 406, 439), consisted of three perforated pipes inserted in the blower unit immediately over the coils and connected to the city water supply by an inclined conduit. The supply of water to these perforated pipes was controlled by a three way or stop and waste valve (Plff's Ex. 22), having precisely the same function as the valve described in the McAdam patent. The drip pan below the coils was provided with a drain to a point outside the refrigerated space (R. 408, 440).

The appearance and mode of operation of the Polar Installation will be best understood by consulting the photographs opposite pages 30 and 32 of this brief (Plff's Exs. 19 and 21, R. 1136, 1138*). Exhibit 19 (R. 1136) shows the blower coil unit suspended from the ceiling in a corner of the ice storage room. The *fan* is behind the unit where

* These exhibits were marked with numbers and letters to indicate the various parts by the witness, Barton, and by counsel for Refrigeration during the taking of the depositions.

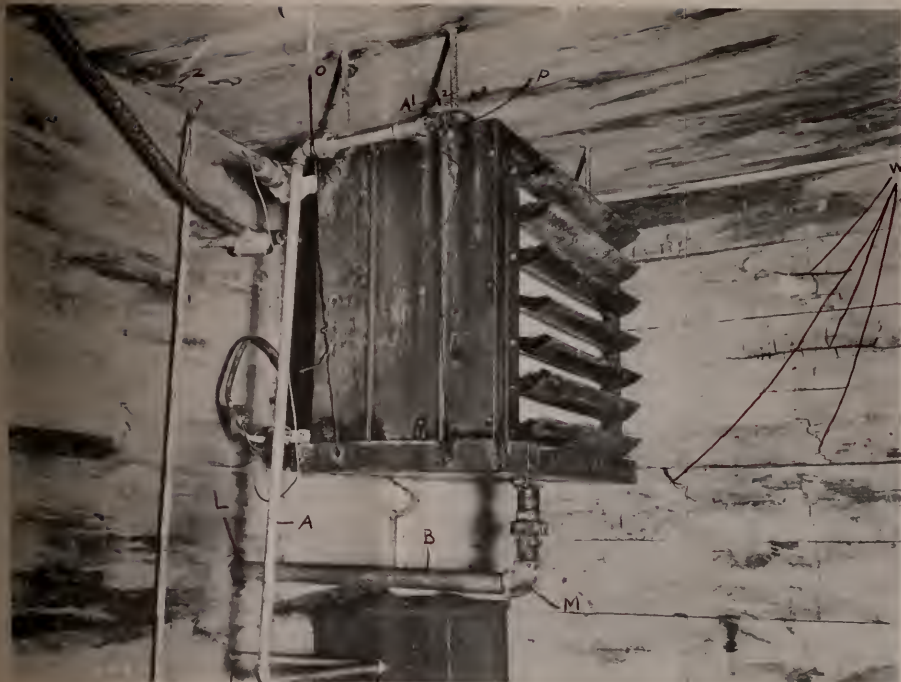
it cannot be seen. It should be noted that this is an enclosed compact blower type of refrigeration unit commonly sold prior to McAdam. The *water supply conduit*, A (R. 409), enters the refrigerated space at the point, R, and supplies water to the three *spray heads*, A¹, A², and A³ (R. 444), which extend into the unit immediately over the coils. The *drain pipe*, B (R. 409), extends downward from the drip pan below the coils and passes through the wall at the point, L.

The compressor and condenser of the Polar refrigerating system are shown in Plaintiff's Exhibit 21 opposite page 32 of this brief (R. 1138). These parts are located outside the refrigerated space. The wall shown in this picture is the other side of the wall shown in Exhibit 19 through which pass the drain pipe, B, and water supply conduit, A. The water supply conduit, A, having passed through the wall travels down to the pit in the foreground where it is connected to the city water supply (R. 411) through a *stop and waste valve* (R. 411-12). There is also another valve, 8, which controls the passage of water in the conduit, A. This is necessary so that water for cooling the compressor, C, and the condenser, D, may be supplied to them through the conduit, 2, without also supplying water at the same time for defrosting through the conduit, A. Water may also be supplied for defrosting without supplying the compressor and condenser with cooling water, by closing the valve, 3, in the line, 2, and opening the valves 1 and 8 (R. 413).

Also shown is the drain pipe, B, in which there is a trap to prevent the entry of warm air into the refrigerated space. The drain pipe wastes on the floor outside the refrigerated space (R. 411).

Referring now to both Exhibits 19 and 21, the procedure for defrosting described in the testimony is as follows (R. 445-6): (a) the fan and compressor are shut off as in the McAdam patent; (b) the valve 3 is closed and the valves 1 and 8 are opened, which supplies water through the conduit A to the spray heads A¹, A², and A³, this corresponding to opening McAdam's valve; (c) after the frost has been

Plaintiff's Exhibit 19
POLAR INSTALLATION
(Inside Refrigerated Space)



South West Corner of Tacoma & E. 10th St. Indpls. Ind.
July 21, 1944 Bass Photo Company

removed, the stop and drain valve 1 is closed to shut off the water, which, operating precisely the same as the valve described in the McAdam patent, at the same time allows all the water in the spray heads A^1 , A^2 , and A^3 and the conduit A, to drain out of the refrigerated space through the valve and into the pit through the spigot shown protruding from the side of the valve 1; (d) the valve 8 is closed and the valves 1 and 3 are opened, which supplies water to cool the compressor and condenser; (e) the fan and compressor are then started again. Of course, all water and melted frost which fell to the drain pan during the defrosting period immediately drained outside the refrigerated space through the drain pipe, B (R. 408, 440).

In its physical characteristics and method of operation this refrigerating unit sold by Hayes Bros., Inc. to Polar Ice in 1934, long prior to McAdam's invention, is practically identical with the apparatus described and claimed in the McAdam patent. Findings Nos. 28 and 32 (R. 18, 19) that the "Polar Ice Installation" does not anticipate the invention of the McAdam patent are in error.

The facts establishing the sale of this water defrosted refrigerating unit were testified to by the following witnesses:

Fred Barton (R. 402), sales engineer of Hayes Bros., who sold the unit to Polar and supervised its installation, identified numerous exhibits and (Plff's Exs. 13-21, R. 1127-38) described the water defrosting connections as installed and explained their operation (R. 405-414).

Herbert Hayes (R. 435), mechanical superintendent of Hayes Bros., who actually made the installation, described what he installed and how it operated.

Henry Dithmer (R. 466), Secretary-Treasurer of Polar, identified various documents (Plff's Exs. 13-17 and 23, R. 1127-34, 1139) as being from the files of the Polar Ice and Fuel Co.

Oscar Nester (R. 470), purchasing agent for Polar since 1923 (R. 471), identified the Hayes Bros. invoices establish-

ing the sale (Plff's Exs. 15 and 16, R. 1132-3) and testified that the installation was satisfactory and that the bill was paid (R. 471, 473).

Elmer Goldsmith (R. 477), a patent attorney, identified correspondence in 1934 describing the disclosure of a water defrosting device made to him by Joseph Hayes who suggested the Polar water defrosting apparatus (R. 407) (Plff's Exs. 24-28, R. 1140-1150).

Earl Simons (R. 488), lessee since 1936 of the Polar Ice station where the installation was made, stated that the piping, valves, etc. shown in the photographs, Exhibits 18-21 (R. 1135-8) are the same as they were when he took over in 1936 (R. 489).

Charles Stage (R. 497), office manager in charge of records at Hayes Bros. (R. 497), produced Plff's Ex. 27 (R. 1147) and Plff's Ex. 29 (R. 1151).

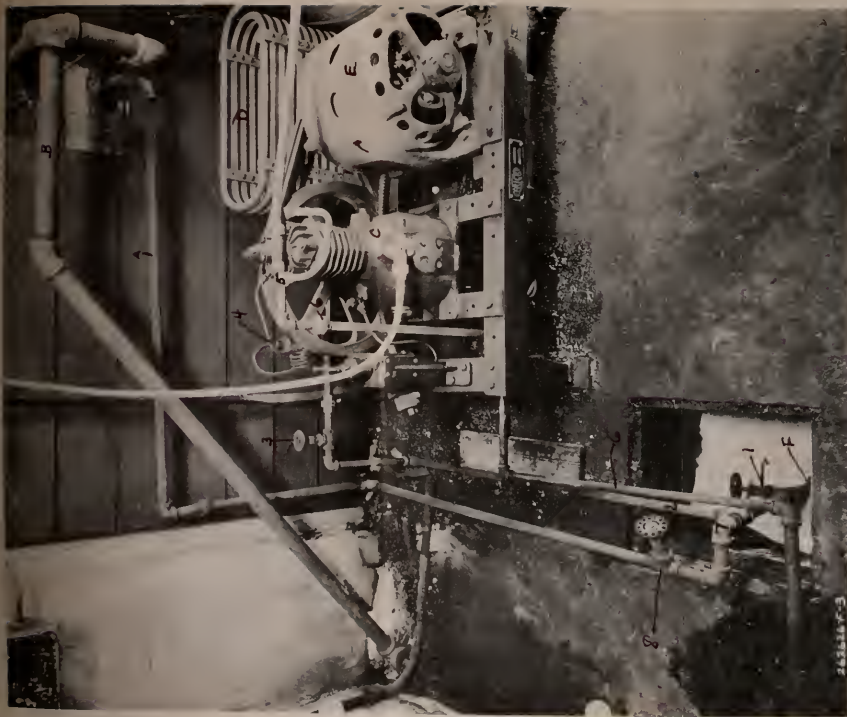
Charles Martin (R. 501), lessee of the Polar Ice station in 1934 at the time the installation was made, stated that the piping, valves, etc. installed in 1934 were the same as those shown in the photographs (Plff's Exs. 18-21, R. 1135-8).

1. Operated at Below Freezing Temperatures.

In regard to temperatures maintained by the Polar Ice device it will be recalled that the installation was guaranteed to maintain a 30° F. temperature and that the fact that this guarantee was not met when the unit was first installed was the occasion for the seller adding water defrosting to achieve the guaranteed temperatures. That the guarantee was met after water defrosting was put in, is evidenced not only by the fact that the job was adjudged satisfactory and was paid for (R. 471-473; 1139) but also by specific tests made before turning over the equipment to the purchaser. Mr. Barton, who supervised the installation, testified as follows (R. 413):

“75Q. Did you ever operate this system?
A. Yes, sir.

Plaintiff's Exhibit 21
POLAR INSTALLATION
(Outside Refrigerated Space)



South West Corner of Tacoma & E. 10th St. Indpls. Ind.
July 21, 1944 Bass Photo Company .21

76Q. When was that?

A. After the defrosting installation was made I operated this system to test and be certain same functioned satisfactorily and to illustrate to the plant operator and Mr. Lamar how same functioned.

77Q. Did it function satisfactorily to defrost the unit?

A. Yes.

78Q. Will you state whether or not the accumulated frost (527) on the unit was removed by the water spray?

A. The frost and ice was successfully removed from the coils with this spray.

79Q. How long did it take to defrost the unit?

A. Approximately ten minutes.

80Q. What temperatures were maintained by this unit in the ice storage room?

A. Approximately 30 degrees. The compressor was set to a cycle between 28 and 30 degrees.

81Q. How do you know that this temperature was maintained?

A. To satisfy the purchaser, I conducted a test, using six Bureau of Standards calibrated mercurial thermometers suspended in ice storage room, reading temperatures over a period of time.

82Q. What did these tests show?

A. These tests proved that the temperatures maintained by this installation were 30 degrees or less."

Herbert Hayes also testified (R. 446) that after completing the installation he made tests of the temperature inside the refrigerated space and found that he "was able to hold a temperature in the neighborhood of 28° in there".

There is nothing in the Record to contradict this testimony. Finding No. 30 (R. 18) that the Polar unit was not used, nor adapted for use, within a refrigerated space maintained below freezing is clearly in error as there is no evidence to support it. The fact that on the cross-examination of Mr. Simons, present lessee of the Polar Ice Plant, it was brought out that the plant is not *now* ordinarily operated at below freezing temperatures is of no consequence, for the defense here urged is the sale in 1934 of this appara-

tus. The Polar Ice installation was pleaded and proved by York not as a prior *use*, but as a prior *sale*. That the apparatus at the time the sale was made was designed and adapted, and actually did operate, to maintain temperatures below freezing is established by uncontradicted testimony.

2. Single Sale Enough to Anticipate a Patent

The law is clear that a single sale of an apparatus substantially similar to that claimed in the patent is enough to invalidate a patent. The Patent Statutes specify that an invention to be patentable may not have been in public use or *on sale* more than two (now one) years prior to the date of application for the patent. R. S. § 4886, 35 U. S. C. A. 31, *infra*, pp. 77-8. The Supreme Court stated in *Consolidated Fruit-Jar Co. v. Wright*, 94 U. S. 92 (1876) at page 94:

“* * * It follows that a single instance of sale or of use by the patentee may, under the circumstances, be fatal to the patent; and such is the construction of the clause as given by authoritative adjudications.”

It is not even necessary that an anticipating article be actually sold, but only that it be placed “on sale”. This Court stated in *Monogram Mfg. Co. v. F. & H. Mfg. Co.*, (9 Cir. 1944), 144 F. 2d 412 at page 414:

“* * * It is sufficient to establish anticipation of rotatability of the housing about such a clamp’s legs that in 1940 the rotatable Finkle clamp was in existence in plaintiff’s attorney’s office and was put to the business of demonstration for sale even though no orders at all were procured. *Automatic Weighing Machine Co. v. Pneumatic Scale Corporation, Ltd.*, 1 Cir., 166 F. 288, 292; *Deller’s Walker on Patents*, Vol. 1, pp. 377-381; Vol. 2, pp. 920, 930; *Christie v. Seybold*, 6 Cir., 55 F. 69, 76.”

Since it is not necessary that the anticipating article be sold but only placed on sale, it follows that the temperature at which it was actually *used* following the sale,

or that it was ever used, is quite immaterial. It is enough that the water defrosted refrigerating apparatus sold to Polar was capable of maintaining below freezing temperatures. That it was capable of doing so is established by the uncontradicted testimony of Barton and Hayes quoted above *supra*, p. 33.

3. Polar Installation Properly Drained

Refrigeration also obtained a finding No. 29 (R. 18) that the water supply conduit and the drain from the drip pan were not properly pitched for draining. This again was based on the testimony of Simons as to the *present* condition of this installation, not as to its condition at the time of installation, which is alone pertinent. Aside from the fact that Hayes, who installed the pipes, testified that they did drain as installed (R. 445-6) and that it seems inconceivable that rational men would have installed drain pipes which wouldn't drain, it was explained (R. 495) that in the present condition of the installation the ceiling to which is attached the blower coil unit has sagged somewhat over the course of years, which would account for any lack of a proper pitch to the pipes which might presently exist.

4. Not Abandoned or Discarded

Finding No. 31 (R. 19), that the Polar installation was abandoned and discarded, is obviously in error since it is still in use. The photographs, Plff's Exs. 18, 19, 20 and 21, (R. 1135-8) showing the apparatus in use were taken July 21 and 24, 1944.

Furthermore, whether or how it is *now* being used is entirely immaterial. As already pointed out, if the device had *never* been used, the mere fact that it had been on sale was sufficient to anticipate the patent. However, in this instance there was an actual sale of a unit which was designed to and did produce a 30° F. temperature with specified insulation (Plff's Ex. 13, R. 1128-9). Barton, who estimated the amount of refrigeration necessary at the

Polar plant, declined to express an opinion (R. 431) as to whether that temperature could be maintained today without knowing more about the extent of deterioration of the insulation, which was pointed out by Simons (R. 491, 496). If there is today any failure to maintain below freezing temperatures, which has not been proved, it could be due only to this deteriorated condition of the refrigerated space.

C. THE SWIFT & CO. INSTALLATIONS AT ELMIRA, N. Y.

Swift & Company opened on July 10, 1935, a branch in Elmira, New York (R. 1211-2) which included a pickle room and a sausage manufacturing room each of which was refrigerated by a fin coil blower type refrigerating unit which was defrosted by spraying ordinary tap water over the coils. These units, equipped with water defrosting, are still being used and have been in continuous commercial operation since that date (R. 662, 681), which was more than three years prior to McAdam's filing date of September 19, 1938.

Ordinary tap water is supplied to a perforated *spray* header through an *inclined conduit* which is shown to the right of Plff's Ex. 45 (R. 1214), which is a schematic drawing of both units. The water which is sprayed over the coils falls to a *drip pan* and thence through a *drain pipe* to the floor which is pitched to a center drain. In both units there is a *stop-and-waste valve* in the supply conduit just outside the unit casing and also an ordinary gate valve in the supply conduit at a point outside the room. The stop-and-waste valve in the pickle room is shown in Plff's Ex. 39 (R. 1207), and in the sausage room in Plff's Ex. 41 (R. 1209). In each case the knurled knob shown protruding from the side of the valve is the waste feature which operates to drain the supply conduit upon being opened.

In both cases when it is necessary to defrost, the compressor is shut down (R. 668, 684) and the water turned on and allowed to spray over the coils (R. 659). In the case of the pickle room the stop-and-waste valve immediately out-

side the unit and the knurled knob controlling the drain vent are always left open and the supply of water is controlled solely by the ordinary gate valve outside the room (R. 661, 682-3). In the case of the sausage manufacturing room the ordinary gate valve outside the room is always left open and the supply of water is controlled by the stop-and-waste valve just outside the unit (R. 659). In the latter case the knurled knob on the stop-and-drain valve is opened immediately following defrosting causing all water to drain from the perforated spray pipe and from the supply conduit on the discharge side of the valve (R. 660).

1. Temperatures Maintained

Neither of these rooms is continually maintained at a temperature below freezing, the sausage manufacturing room being usually maintained at a temperature of approximately 40°F. and the pickle room at a temperature of approximately 34-36°F. However, the temperature of these rooms occasionally goes below freezing, particularly over weekends when no one is entering or leaving the room (R. 668). It is significant that in the pickle room, which is maintained at the lower temperature, the supply of water for defrosting is controlled in such a way that the entire supply conduit and perforated spray header within the refrigerated pickle room are drained immediately following the defrosting period, whereas in the sausage manufacturing room, which is maintained at a higher temperature and therefore less subject to the danger of freezing temperatures, no provision is made for draining the entire supply conduit but only that portion of the conduit and the perforated spray pipe which is inside the refrigerating unit. In both cases the draining is done to prevent the possibility of the defrosting water freezing in the pipes (R. 662, 685).

Precisely the same "problem", if there be any, was met and solved here as was later met and solved by McAdam and in precisely the same way. Refrigeration contends that the "problem" was to introduce water into a space which was below the freezing point of water, defrost

the coils in that space (as it was commonly known water would do), and then remove the water from that below freezing space before enough heat had been removed from the water to cause it to freeze. In the case of the Swift installations the "problem" varied as between the two units. In the sausage manufacturing room, the higher temperature room, the only space which was expected to be below freezing was within the refrigerating unit and therefore provision was made to drain only those pipes which were within that space. In the case of the pickle room, the lower temperature room, the entire refrigerated space as well as the space inside the refrigerating unit was expected to go below freezing over the week end. Therefore provision was made to drain all portions of the pipes which were inside that refrigerated space. In both instances the "problem" was precisely the same as was faced by McAdam. In both instances it was solved in precisely the same way by the use of a stop and waste valve to drain all portions of the conduit and spray head which extended within whatever might be the below freezing zone.

The witnesses who testified in connection with this prior use were:

Louis V. Smith, now superintendent of the Swift plant in Elmhurst and associated with the company at that plant since 1933 (R. 655), described the structure and operation of the water defrosting units and identified the photographs and drawing of the units (Plff's Exs. 38-42 and 45, R. 1206-10, 1214) and the announcement of the opening of the Swift plant in July, 1935 (Plff's Exs. 43A-B, R. 1211-2).

W. C. Fuller has personally defrosted the two refrigerating units at the Swift plant ever since they were installed in 1935 (R. 681). He described the operation and identified the photographs of the units (Plff's Ex's 38-42, R. 1206-10).

Ralph Van Patten was the local plumber who installed the water defrosting connections in 1935 (R. 691-2). He had inspected the installation within a few days of testifying

and reported that there had been no changes made since they were installed (R. 693).

G. A. Personius, a local photographer, identified the photographs (Plff's Exs. 38-42, R. 1206-10) as being those which he had taken at the Swift plant on February 16, 1945 (R. 656-7).

Refrigeration obtained a Finding (No. 36, R. 19) that there is a third room at the Swift plant which was maintained at a temperature below freezing and in which an automatic water defrosting apparatus is not used. The refrigerating coils, however, in this third room were bare pipe coils which were arranged about the walls of the room. That type of installation requires only infrequent defrosting, usually not more than twice a year (R. 996). Since the coils are spread around the room, it is impractical to make use of a permanent type of spray head and the usual and easier practice of spraying them with a hose is followed.

Although the present condition of the water supply conduits is immaterial, Refrigeration also obtained a Finding (No. 35, R. 19) that the water supply conduits are now not inclined so that they will drain. However, their present inclination is explained by the fact that the hangers holding these pipes up have broken, allowing the pipes to sag (R. 686-7, 690). Moreover, the measurements upon which Finding No. 35 is based do not correctly show the inclination of the pipes. They were arrived at by taking the distance from the floor to each end of the pipe. Since the floor in each of these rooms is pitched to drain toward the center of the room (R. 694) a difference in the measurements would reflect only the inclination of the floor, but not of the pipe.

D. THE TRULLINGER AND EUSTICE INSTALLATION AT YAMHILL, OREGON.

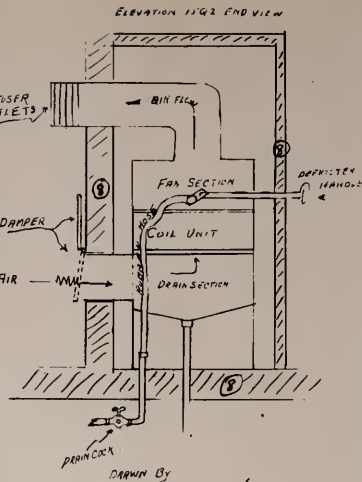
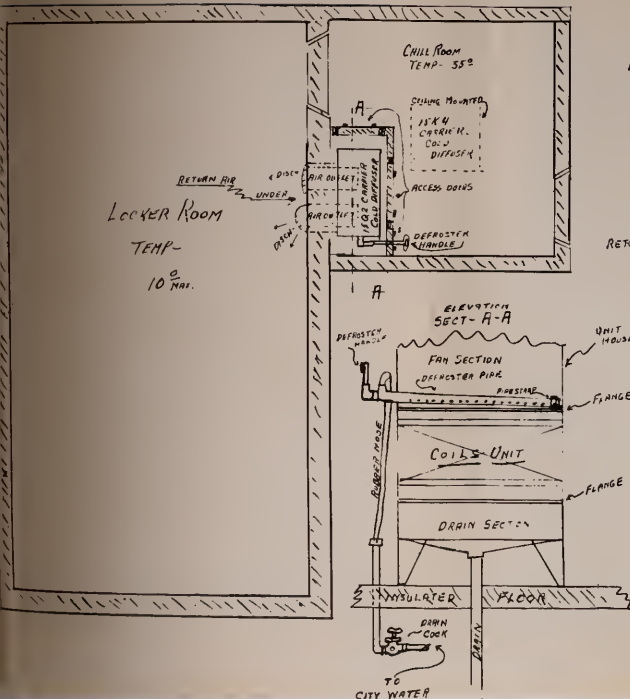
On September 26, 1936, W. C. Hulse, a salesman for Electrical Products Consolidated, submitted to Fred L. Trullinger, of Trullinger and Eustice, at Yamhill, Oregon, a proposal for the installation of refrigerating machinery

in his firm's locker plant at Yamhill. The plant consisted of a locker room which was to be maintained at an average temperature of 10° F. and a chill room adjacent thereto which was to be maintained at 35° F. The proposal provided that the refrigerating unit used to cool the locker room would be defrosted by "hot" gas defrosting (Plff's Ex. Y-1, R. 1215-18). This proposal was accepted by Mr. Trullinger and a contract incorporating the terms of the above proposal was entered into on September 28, 1936 (Plff's Ex. Y-3, R. 1220-25).

The installation of the refrigerating machinery was made early in November 1936 by Anton Broms, under the direction of Hulse and Postlewaite, the latter being in charge of the Portland office of Electrical Products Consolidated. These three men testified as to the installation and its operation as did also Trullinger and Eustice, the purchasers and users of the machinery. The installation was commercially operated from November, 1936 (R. 924) until December, 1938 or January, 1939 (R. 888).

The construction of this installation can be seen in the drawing reproduced opposite page 40 of this brief (Plff's Ex. Y-28, R. 1241; for photographs of portions of the equipment today see Plff's Exs. Y-14 to Y-18, R. 1231-5). The figure in the upper left-hand corner shows in plan view the locker room and the adjacent chill room, the only entrance to the locker room being through the chill room. A Carrier cold diffuser was mounted on the ceiling of the chill room to maintain the required 35° F. temperature in that room. A larger capacity Carrier refrigeration unit was installed on the floor of the chill room adjacent to the locker room wall, with air inlet and outlet openings through that wall to maintain the guaranteed temperature of 10° F. in the locker room.

As called for in the original proposal an attempt was made to use hot gas defrosting on the large capacity Carrier refrigeration unit. This type of refrigerating unit has only one compressor, one condenser and one evaporator coil. Hot gas defrosting is more feasible when there is



DRAWN BY
Clotulse

Plaintiff's Exhibit Y-28
250 8/10/116 28

more than one evaporator coil to provide a stand-by supply of hot gas (R. 1024) and therefore, after two or three days, the attempt proved unsuccessful to defrost this type of unit with gas (R. 708). Broms, the installation man, then decided to use water to defrost the coils and, with the acquiescence of Postlewaite (R. 876), drilled a hole in one end of the refrigerating unit and inserted a perforated pipe over the coils (R. 709-10), as shown in Section A-A of the drawing opposite page 40 (Plff's Ex. Y-28, R. 1241). This perforated pipe was then connected by means of a rubber hose to the city water supply in the basement. A stop-and-drain valve was installed in the city water line in the basement (R. 711) which controlled the supply of water through the perforated pipe. When this valve was shut off and the drain feature opened, all the water in the rubber hose and in the spray pipe drained out of the refrigerated space (R. 714, 771, 780). Broms also connected a short piece of pipe to the spray pipe so that the latter could be oscillated while the water was running, thus spraying the entire surface of the coil (R. 710, 770, 876).

The operation of this system of water defrosting was as follows (R. 712-19; 815-16; 877-8; 934-5): the *fan* and the compressor were shut off; the *valve* in the water supply line was opened and the water allowed to *spray* over the coils, during which time the spray pipe was rocked back and forth by the operator; the top of the coil could be observed through a hole in the side of the unit and the bottom of the coil could be seen by looking through the return air opening from the locker room as shown in the drawing (Plff's Ex. Y-28); when it had been observed that all of the frost had been removed, which took approximately 5 to 15 minutes (R. 715, 935), the supply of water was shut off by closing the valve in the basement, at the same time the *drain valve* was opened, which allowed all the water on the discharge side of the valve to drain back through the valve; the fan and compressor were then turned on again.

This method of defrosting proved satisfactory, the required 10° F. temperature in the locker room being

achieved (R. 783, 839, 880, 939), and the locker plant was put into commercial use on November 11, 1936, at which time a turkey was tagged and placed in the locker room (R. 837). This turkey, which is shown in the photograph (Plff's Ex. Y-18, R. 1235), is still preserved, indicating that a temperature well below freezing has been maintained in the locker room since that time (R. 838).

As originally installed the large capacity Carrier refrigeration unit was openly exposed in the chill room (R. 707). Due to the excessively low temperatures maintained within the unit, heat was absorbed from the air of the chill room causing the temperature of the warmer chill room to go below the guaranteed 35° F. (R. 735, 781). To correct this condition an insulated wall, shown in the drawing (Plff's Ex. Y-28, R. 1241), was built in the chill room around this larger refrigeration unit (R. 781, 925), with removable panels in the wall making it possible to gain access to the unit for purposes of repair (R. 958). Also a handle was attached to the spray pipe and extended through a hole in the insulated wall (R. 782, 938) so that the spray pipe could still be oscillated from the chill room during the defrosting period.

The apparatus which was used at Yamhill meets in every particular the claims of the McAdam patent and there is no basis for the statement in Finding No. 37 that it is not established that those taking part in the installation had knowledge of the McAdam invention. This Finding states that "it is not established that said installation was either made, used or sold." As in the case of other Findings, there is nothing in the record to support this. The uncontroverted evidence is that the Yamhill water defrosting installation was made and sold by Electrical Products Consolidated to Trullinger and Eustice who then used it commercially for over two years. Refrigeration's own witness, Dahl, who was manager and chief engineer of Electrical Products, the concern that sold the unit, testified that in the early part of 1937 he saw this installation in use, equipped with water defrosting (R. 1086).

1. Operated at Below Freezing Temperatures

The testimony clearly establishes that the Yamhill unit produced below freezing temperatures and was in a space at below freezing temperature when it was defrosted. There can be no question but that the temperature of the locker room was well below freezing, the guaranteed temperature of 10° F. being maintained at all times (R. 783, 839, 880, 939). Refrigeration, however, contends and Findings 40 and 41 prepared by it state that the refrigerating coils were placed outside the refrigerated space and that the temperature of the space within which the coils operated was not maintained below freezing.

There is no limitation in claim 13 that the refrigerating unit must be placed *within* the refrigerated space. The claim does not read "*In a refrigerated space*" but rather "*In combination with a refrigerated space*" (R. 1432). Clearly the refrigerating unit at Yamhill was and is "*In combination with a refrigerated space.*"

However, the unit at Yamhill was not only "*In combination with a refrigerated space*" but was actually *within* a refrigerated space, and this space was at all times below freezing. It must be remembered that the heat absorbing capacity of the sheet metal casing of this refrigerating unit was so great that when openly exposed in the chill room as it was first installed, it brought the temperature of this room down below freezing (R. 735, 781, 929). When the unit was enclosed by an insulated wall in a small compartment this same heat absorbing capacity was concentrated on a much smaller volume of air. It follows that the temperature of the air within this space would be reduced even further below freezing. The witness, Hulse, in answer to questions by the Court, testified (R. 936-7):

"The Court: Then do you know the temperature of the room inside the insulated unit?

"The Witness: You mean the locker room or the little room?

"The Court: The little room where the freezer was.

"The Witness: That temperature was always at the locker room temperature or below.

"The Court: Was it there when you were defrosting?

"The Witness: It would still be always at that range.

"The Court: It would be at that or below?

"The Witness: That is right."

Since the refrigerating unit was in the "little room" and one wall of this "little room" had on the other side the locker room, which was maintained at 10° F., and the other "little room" walls were exposed to the chill room temperature of only 35° F., the rise in temperature in the "little room" due to the passage of heat through the walls must have been negligible. The only other source of heat was the water spraying *inside the unit* during the short period of defrosting, and this could have had little effect upon raising the temperature in the little room. Therefore it is not surprising that the testimony established that water which splashed or leaked from the refrigerating unit during the defrosting period froze on the sides of the unit and on the floor of this insulated compartment and that this ice remained there continually, both during operating and defrosting periods (R. 880, 965-6).

The McAdam patent teaches that water should be sprayed over the coils from a spray header until the frost has been removed and provision should be made to drain the water away. This is precisely what was previously done at Yamhill. Assuming coils of the same size, an equal amount of frost, and water at the same temperature, the rise in the temperature inside the units during defrosting must be the same. Every advantage which can be asserted for McAdam's apparatus can be made equally well for the Yamhill apparatus, because they are substantially identical in structure and operation.

Refrigeration obtained a Finding (No. 44) that the refrigerating unit was isolated from the locker room during

the defrosting period by placing the unit outside of the locker room and by closing doors over the air intake and outlet openings from the unit to the locker room. From this Refrigeration draws the inference that those concerned with the Yamhill installation did not conceive that water defrosting could be used at below freezing temperatures. However the testimony clearly shows that the refrigerating unit was placed outside the locker room in order to provide more locker space inside the locker room (R. 896), and that temperature of the air within the insulated wall was just as cold or colder than within the locker room (R. 880, 936-7, 965-6).

2. Not an Abandoned Experiment

It was established that the refrigerating unit equipped with water defrosting was in continual commercial use at Yamhill for over two years, or from November, 1936, to December 1938 or January 1939. There is absolutely no evidence to the contrary. The date of first use is established by the testimony of the men who installed the unit (R. 870, 924) and also by the testimony of Eustice, one of the owners of the locker plant, who told of the turkey which was dated and placed in the locker room on November 11, 1936, when the plant was opened to customers (R. 837). Eustice's ledger book (Plff's Ex. Y-20, R. 1237) also shows entries of payments by customers for locker space during the latter part of 1936. He stated that it was customary to pay for a locker at the time it was put in use (R. 843), and that the water defrosting apparatus was in use at the time of these entries (R. 844).

The water defrosting apparatus was removed and a warm air system of defrosting installed in the winter of 1938-39 by Western Engineering Co. (R. 888). The change-over could not have occurred earlier since that concern was not in existence until December 1938 (R. 870). Thus the dates of first use and of the change-over to warm air

are clearly established and Finding No. 46 (R. 21) that the dates were not established is in error.

There was a public, commercial use of this water defrosting apparatus for over two years in the regular course of the business of Trullinger & Eustice. Finding 38 (R. 20) that this installation was "an abandoned experiment" has no evidence to support it. There is no question but that the use at Yamhill was open and public. Hulse testified that occasionally he took customers of his out to show them the water defrosting apparatus and how it operated (R. 937). Such a public use for profit is not an experimental use. This Court stated in *Paraffine Companies v. McEverlast, Inc.*, (9 Cir., 1936) 84 F. 2d 335 at page 340:

"If the purpose of the prior use is chiefly experimental, such use will not defeat the subsequent patent, even though the use is long continued and viewed by the public. But, if the device is used in the regular course of production or commerce, and is not concealed from the public, it will invalidate the subsequent patent. *Smith & Griggs Mfg. Co. v. Sprague*, 123 U. S. 249, 8 S. Ct. 122, 31 L. Ed. 141; *Root v. Third Ave. R. Co.* 146 U. S. 210, 13 S. Ct. 100, 36 L. Ed. 946."

Finding No. 39 (R. 20) is misleading in stating that "several different methods of defrosting were attempted unsuccessfully and later abandoned." The testimony is that "hot gas" was used for a very short time, only two or three days (R. 708), and that the installation was completed on November 11, 1936 equipped with water defrosting (R. 848, 926). Water was thereafter used for defrosting the unit in regular commercial operation for over two years, when the changeover was made to warm air defrosting which is still being used.

Finding No. 39 also states that the warm air system of defrosting now being used "results in a rise in temperature

of the refrigerated space''. There is absolutely no testimony or evidence of any kind to support this finding. Moreover, Mr. Chamberlain, assistant chief engineer of York, testified (R. 1009) that the use of warm air to defrost would not result in a rise in temperature in the refrigerated space. Jarvis, Refrigeration's general manager, admitted that with warm air defrosting the air circulates within the unit and does not go into the refrigerated space (R. 86).

Finding No. 42 states that "the attempt to use water for the purpose of defrosting was unsatisfactory" in spite of the fact that every witness who was directly connected with the installation, and particularly Trullinger and Eustice, who were the individuals most directly concerned, testified that the water defrosting was satisfactory.

Mr. Trullinger stated (R. 784) quite flatly that the water defrost system operated satisfactorily and explained what he meant by satisfactory:

"Mr. White: Q. 241. Did the water defrost system as you personally operated it satisfactorily to you defrost the coil?

* * * * *

A. *It was satisfactory.*

Mr. White: Q. 242. Did it defrost the coil?

A. It did.

Q. 243. Did you observe the coil afterwards?

A. Yes, I did.

Q. 244. Compare the appearance of the coil before and after you operated it.

A. Before it was all closed up with ice and frost, and afterwards it was clean of frost and ice.

Q. 245. What happened to whatever was removed from the coil?

A. Oh, it melted off and went down through the drain pipe."

Mr. Eustice stated that the water defrosting was satisfactory (R. 852):

“Q. 167. Was the system then satisfactory from the standpoint of maintaining the desired locker room temperature?

* * * * *

A. Yes, it was satisfactory as far as defrosting was concerned.”

Refrigeration's witness, Dahl, was the only witness who testified to the contrary but he admitted on cross-examination that he had never seen the installation defrosted (R. 1086-7) and that his information came from oral reports (R. 1087). His statement was rank hearsay. It was also brought out in the testimony of Mr. H. Calvin White, of counsel for York, that in April, 1945, Mr. Dahl had stated to him that the Yamhill water defrosting apparatus had operated satisfactorily (R. 1106) which directly impeached Dahl's testimony (R. 1089).

Finding No. 43 stated that it was established that the refrigeration machinery “was not paid for by the owners thereof, Eustice and Trullinger, during the attempt to utilize water for the purpose of defrosting”. There is no evidence in the record to support this, and the only evidence is to the contrary. Refrigeration's counsel attempted on more than one occasion to gain an admission from both Trullinger and Eustice that the installation at Yamhill had not been fully paid for until after the changeover to warm air defrosting and that the reason for withholding payment had been that the water defrosting had not operated satisfactorily. Both Trullinger and Eustice, however, insisted that the unit was satisfactory (R. 784, 852), that it had been paid for (R. 802, 848), and Eustice definitely stated that the refrigerating system had been fully paid for *prior to* the changeover to warm air defrosting. At page 848 of the Record, Eustice stated:

“By Mr. Lyon:

Q. 144. It is also true, Mr. Eustice, that you told me yesterday that you never paid for this system

because it was unsatisfactory; isn't that correct? You told me and Mr. Hy Jarvis down here that?

A. I said we didn't pay for the system until we thought it was in workable order.

Q. 145. That is, you didn't pay for it until after it was changed over to the hot air system?

A. No. No, I didn't say that.

Q. 146. Isn't that true?

A. No, it was paid before."

Even Refrigeration's own witness, Dahl, when asked by the Court whether his company got paid in full for the job, stated (R. 1085) "I cannot say definitely, but I would presume that possibly they did".

Various reasons were given for replacing the water defrosting with warm air defrosting. Trullinger stated that the warm air was less trouble to operate (R. 795). Eustice objected to the film of water left on the coil after defrosting with water (R. 851). These are objections which apply to the use of any water defrosting apparatus. Postlewaite stated that the water pressure at the locker plant was not at all times sufficient to effectuate a complete job of defrosting (R. 881). This was obviously a local condition which made any water defrosting unwise. At all events replacement of the water defrosting apparatus does not affect its validity as an anticipation. As stated in *International Carbonic Eng. Co. v. Natural Carb. Prod.* (D. C. S. D. Cal., 1944) 57 F. Supp. 248; affirmed 158 F. 2d 285, at page 265:

"... the discontinuance of the use of a machine does not mean that that machine did not exist as testified, nor that that machine did not perform its functions successfully so as to prove a prior use under the patent statutes."

The Yamhill installation was a complete anticipation of the McAdam patent.

E. THE PRIOR ART PATENTS

None of the prior art patents, hereafter referred to, was cited by the Patent Office during the prosecution of the McAdam application. Four relate directly to water defrosting; the other two cover various forms of stop and waste valves similar to that used by McAdam to drain his water supply conduit.

Water defrosting patents:

Brassert, U. S. No. 958,471 (R. 1257);

Gayley, U. S. No. 1,002,576 (R. 1261).

Of the four patents which are concerned with water defrosting, two cover improvements on "the well known Gayley dry blast system" (R. 1259, column 1, lines 13-14), which system we have considered in connection with the prior uses at Pittsburgh, Chicago and Mayville.

The patent to *Brassert* granted May 17, 1910, shows the defrosting water sprays 5 above the coils. The patent states (R. 1259, col. 1, lines 52-55):

"Preferably, warm water from the ammonia condensers is supplied, though *any supply of water at a temperature above freezing can be used.*"

Since the patent is directed particularly to means for utilizing the defrosting water to cool the condensing coils, it does not disclose the details of the water defrosting apparatus, this being considered common knowledge.

The *Gayley* patent granted on September 5, 1911, disclosed the use of baffles on the sides of the cooling compartment so that the air and water which passed through these compartments would be kept in close contact with the cooling coils.

Figure 6 of the patent (R. 1264) shows spray headers positioned over the coils and the specifications and claims refer to the use of water to defrost (R. 1265, lines 26, 36, 48, 74, 84; 1266, claim 4). This patent, being directed to a par-

ticular improvement, does not disclose the details of water defrosting and leaves the matter of drainage to the skill of the engineer installing the system.

Jensen and Roser, Fr. No. 800,640 (R. 1279).

The Jensen and Roser patent, which was published on July 15, 1936, covers a refrigerating system in which the cooling element consists of a cylindrical container through which extend lengthwise a plurality of hollow tubular air passages. The diagrammatic drawings (R. 1286) show that the air enters at the top of a surrounding cylinder 15, passes down between the inside of cylinder 15 and the outside of cooling container 2, and thence up through the tubes. The air is drawn through these tubes by a *fan* 9 which is not set in operation until the temperature of the air which is being cooled goes down to -2°C . (R. 1282). This indicates that the operating temperature is therefore something below that figure and of course below freezing.

Defrosting is accomplished by causing either a "*stream of air or water*" (R. 1282) to flow over the cooling container 2 from a perforated *spray* pipe 16 placed over the container. The melted frost and water are collected in a *drip pan* 14 and conducted outside the refrigerated space by the *drain pipe* 18. A control is provided whereby the fan is stopped during the defrosting period.

The Jensen refrigerating unit is placed within the space it is intended to refrigerate. The patent refers to the fan blowing the cooled air "against the ceiling of the cooling chamber" and that the "blower keeps the air of the chamber in continuous circulation, which is of advantage in the preservation of foodstuffs" (R. 1282). Since the thermostat is set to operate the refrigerating unit when the temperature gets up to -2°C ., which is between 28° and 29°F ., the refrigerated space is continually kept below freezing. This patent shows all of the parts called for in McAdam's claim 13 except a valve, such as the common three-way valve. It is obvious some such valve would have to be used, and this was left to the man skilled in the art.

Wenzl, U. S. No. 2,097,851 (R. 1271).

The *Wenzl* patent, granted November 2, 1937, discloses a device designed to cool the air in a given space *to a temperature below 0°* (R. 1275, col. 1, line 24). The aim of the invention is to minimize frosting and reduce air resistance. Therefore the cooling *coils* are flat cells through which the refrigerant travels in a zig-zag path. The air is drawn up over the coils at a high velocity and discharged into the refrigerated space by a *fan* positioned above the coils.

Referring to Figures 1 and 2 of the patent drawings (R. 1276, col. 2, lines 12-15) :

“A spray pipe 15, with perforations 16, is placed across the lower portion of the fan chamber 33 for defrosting the elements 1 *by water issuing from the perforations 16.*”

This patent, like the preceding one to *Jensen*, is another instance of a use of water to defrost cooling coils at below freezing temperatures.

Three-way or Stop and Waste Valve Patents:

Newman, U. S. No. 389,098 (R. 1243) ;

Heltzle, U. S. No. 389,652 (R. 1291).

Since it is admitted that “three-way” or “stop and waste” valves are old (R. 259) there is no necessity of discussing the above patents which show various forms of such valves, which were used “to provide means for controlling the water supply” and “to drain said supply pipe of water to prevent freezing in cold weather” (*Heltzle*, R. 1293, ll. 13, 17). *McAdam* used the same type of valve for the same purpose.

Refrigeration introduced no testimony in regard to the prior art patents discussed above. Its patent expert did not allude to or attempt to distinguish them in any way. Since there is no conflicting evidence on the question of whether

these prior art patents invalidate McAdam's patent, this Court is in just as good a position as was the District Court to decide this question.

F. THE PRIOR ART DEVICES ANTICIPATE THE McADAM PATENT REGARDLESS OF THE TEMPERATURE AT WHICH THEY WERE USED

All of the prior art water defrosting devices which we have examined, except the two units at Elmira, were designed to be used and were used at below freezing temperatures, and the pickle unit at Elmira was occasionally so used. York urges, however, that the question of temperature is immaterial and that each of these prior devices is a complete anticipation of the McAdam patent whether or not it was ever used below freezing.

The prior use devices had precisely the same structural elements as claimed in the McAdam patent. In each there was an inclined conduit which supplied water to a spray head positioned over the cooling coils, which conduit was equipped with a valve or valves to admit water and to allow the water to be drained by gravity as soon as the supply of water was shut off. In each case there was a drip pan or its equivalent which was drained by gravity to a point outside the refrigerated space. And each had a fan and coils.

The structure of the prior units made them entirely capable of being used in a refrigerated space continually below freezing, as indeed they were. McAdam made no structural changes which would cause his device to be any more capable of being used below freezing than those which existed prior to his alleged invention.

Assuming, contrary to the fact, that none of these prior devices was ever so used, the most that can be said for McAdam is that he was the first to use such a device in a refrigerated space continually below freezing. But a new use of an old apparatus is not patentable. As this Court stated in *Kruger v. Whitehead* (9 Cir., 1946) 153 F. 2d 238, 239, the use of a prior art device "for a new purpose does not amount

to invention". To the same effect is *Pevely Dairy Co. v. Borden Printing Co.*, (9 Cir., 1941) 123 F. 2d 17, 19.

In *Mathews Conveyer Company v. Palmer-Bee Company*, (6 Cir., 1943) 135 F. 2d 73, the Court said at page 89:

"An old mechanism fully capable of a use not then observed, anticipates a later patent for the application of that means to the new use. * * * Discovery of new uses for, or newly observed functions of a device, well known in the mechanical or structural arts, is not patentable invention."

Perhaps the most recent statement of this rule of law is to be found in *Old Town Ribbon & Carbon Co. v. Columbia R. & C. Mfg. Co.*, (2 Cir., 1947) 159 F. 2d 379 at page 382:

". . . Nevertheless, since 1793, unless a patent disclosed a 'new and useful art', a new 'machine', a new 'manufacture', or a new 'composition of matter', it has not been a valid patent. If it be merely for a new employment of some 'machine, manufacture or composition of matter' already known, it makes not the slightest difference how beneficial to the public the new function may be, how long a search it may end, how many may have shared that search, or how high a reach of imaginative ingenuity the solution may have demanded. All the mental factors which determine invention may have been present to the highest degree, but it will not be patentable because it will not be within the terms of the statute. This is the doctrine that a 'new use' can never be patentable. In this circuit we have many times applied it, and it has been recognized elsewhere."

McAdam's patent is for an apparatus. In order to be patentable an apparatus must be new in the sense that it must embody some *physical* improvement over that which existed before, and this improvement must evidence more ingenuity in its conception than that possessed by the ordinary skilled mechanic. This necessity for novelty in the *mechanical means* is expressed in *Grand Rapids Show Case*

Co. v. Weber Show Case & Fixture Co., et al., (9 Cir., 1930) 38 F. 2d 730. This Court said at page 731:

“ . . . ‘it is not the result, effect, or purpose to be accomplished which constitutes an invention, but the mechanical means or instrumentalities by which the object sought is to be attained. Patents cover the means employed to effect results’. *Kohler v. Cline Electric Mfg. Co.* (D. C.) 28 F. (2d) 405, 406.”

In the attempt to avoid the prior uses proved in this case, Refrigeration has been driven to the following untenable position with respect to invention: the McAdam patent covers an apparatus when the temperature of the refrigerated space is one degree below freezing, but it does not cover the same identical apparatus when the temperature rises to one degree above freezing. But surely a specific apparatus cannot be an infringement of an *apparatus claim* when the space is below freezing and a moment later *the very same structure* suddenly cease to be an infringement when the temperature rises above freezing. Refrigeration's dilemma arises from its attempt to import into its *apparatus* claims a use or method limitation, thinking that by so doing it can avoid these prior uses. However, the claims are for an apparatus, as their patent expert Doble admitted (R. 260) and not for a method of use. The distinction between process and apparatus claims is clear, as explained in *Nestle-Le Mur Co. v. Eugene, Limited* (6 Cir., 1932) 55 F. 2d 854. The Court said at page 857:

“ . . . The subjects covered by patents for a process and for a machine, although frequently related and in a sense often founded upon the same mental concept, are nevertheless in substance independent and radically different. As clearly stated in the authorities here cited, ‘a machine is a thing’, while ‘a process is an act, or a mode of acting’; ‘a new process is usually the result of a discovery; a machine, of invention’. In *Cochrane v. Deener*, 94 U. S. 780, 788, 24 L. Ed. 139, it was distinctly pointed out that a process may be altogether new, and produce an entirely new result, while the machinery ‘suit-

able to perform the process may or may not be new or patentable.' ”

Even assuming that McAdam was the first to think of the method of using water to defrost cooling coils in a below freezing atmosphere, the means which he adopted to effectuate his purpose were old. The machinery is old and therefore the patent granted to cover this machinery is invalid.

III. McAdam Patent Is Invalid For Lack of Invention

In order to be patentable the subject-matter of a patent must be not only “new” but it must also amount to an “invention.” *Thompson v. Boisselier*, 114 U. S. 1, 11.

The advance or improvement over the prior art must involve more skill and ingenuity than would be possessed by the ordinary mechanic skilled in the trade.

In *R. G. Le Tourneau v. Gar Wood Industries*, (9 Cir., 1945) 151 F. 2d 432, this Court stated at pages 434-5:

“As the Supreme Court explained in *Cuno Engineering Corporation v. Automatic Devices Corporation*, 1941, 314 U. S. 84, 90, 62 S. Ct. 37, 40, 86 L. Ed. 58: ‘We may concede that the functions performed by Mead’s combination were new and useful. But that does not necessarily make the device patentable. Under the statute, 35 U. S. C. § 31, 35 U. S. C. A. § 31, R. S. § 4886, the device must not only be “new and useful”, it must also be an “invention” or “discovery”. * * * Since *Hotchkiss v. Greenwood*, 11 How. 248, 267, 13 L. Ed. 683, decided in 1851, it has been recognized that if an improvement is to obtain the privileged position of a patent more ingenuity must be involved than the work of a mechanic skilled in the art.’ The Court stated further, 314 U. S. at page 91, 62 S. Ct. at page 41, 86 L. Ed. 58, ‘A new application of an old device may not be patented if the “result claimed as new is the same in character as the original result” * * * even though the new result had not before been contemplated.’ ”

The application of this rule has tended to become increasingly strict with the passage of time. This tendency has been noticed and commented upon in *Picard v. United Aircraft Corporation* (2 Cir., 1942), 128 F. 2d 632 at page 636:

“We cannot, moreover, ignore the fact that the Supreme Court, whose word is final, has for a decade or more shown an increasing disposition to raise the standard of originality necessary for a patent. In this we recognize ‘a pronounced new doctrinal trend’ which it is our ‘duty, cautiously to be sure, to follow not to resist’. *Perkins v. Endicott Johnson Corp.*, 2 Cir., 128 F. 2d 208.”

It is apparent that McAdam's device does not measure up to these exacting standards. Since McAdam's patent is for an apparatus, his advance must be found in some mechanical improvement made in the physical apparatus itself. But, as we have already seen, McAdam's physical device does not vary at all from those which existed in the prior art. Since there is nothing new in the apparatus, there can be *a fortiori* no invention.

Even assuming, contrary to the evidence, that the idea of using water to defrost at below freezing temperatures was new, there was no invention. Certainly there was no invention in providing a pipe to carry the water into the refrigerated space, a spray head to spray water over the coils, and a drained drip pan below the coils to catch and carry away the water. The “problem” then, if any, was to devise means for draining the supply pipe and spray head immediately following the defrosting period. To do this, McAdam made use of the most obvious means available, an ordinary drain valve. It was and is standard plumbing procedure in every instance where a water pipe is exposed to below freezing temperatures, to provide a stop and drain valve which operates in such a way that the instant the valve is shut off, and the water is no longer moving in the pipe, this valve will allow all the water on the discharge side of the valve and in the freezing zone to drain

able to perform the process may or may not be new or patentable.' ”

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back through the valve (R. 431, 464; Plff's Ex. 102, R. 1296-7).

Moreover, McAdam's combination is a *mere aggregation of parts*. Each of the parts performs precisely the same function in the combination that it does apart from the combination. So long as each element performs some old and well known function, the result is not a patentable combination, but an aggregation of elements, and the patent is invalid for this reason alone.

In the case of *Fernandez v. Phillips*, (9 Cir., 1943) 136 F. 2d 404, the patent in suit was for a means of precooling railway refrigerator cars. Railway cars were cooled by means of ice contained in bunkers which were separated from the rest of the car by bulkheads and the circulation of the air normally produced by convection, the air moving downward in the bunkers as it was cooled by the ice and upward in the body of the car as it absorbed heat from the contents of the car, cooled the car. The patent disclosed an electric fan mounted in a portable panel to be mounted in the upper or lower opening in the bulkhead to force the circulation of the air. The device of an electric fan in a portable panel to be mounted in an opening for purposes of ventilation was old. The combination of such a portable fan with a railway refrigerator car was claimed by the patentee to be new. This Court found the claim invalid and said, at page 406:

"Old elements may be combined into patentable invention, but, 'so long as each element performs some old and well-known function, the result is not a patentable combination, but an aggregation of elements'. *Richards v. Chase Elevator Co.*, 158 U. S. 299, 15 S. Ct. 831, 833, 39 L. Ed. 991. See, also, *Mantle Lamp Co. v. Aluminum Products Co.*, 301 U. S. 544, 57 S. Ct. 837, 81 L. Ed. 1277. Here, the refrigerator car performs its old function of cooling, and the fan its old function of circulating. . . ."

Finding No. 18 (R. 16) that it required the exercise of inventive faculty to invent the combination as defined by claim 13 of the McAdam patent is without basis in the Record.

A. McAdam Solved No Long Existing Problem

Unable to point to any advance made by McAdam in the *apparatus* used for defrosting, Refrigeration has sought to prove invention indirectly by conjuring up a defrosting "problem" and its solution by McAdam.

The only testimony in the Record upon which to base Finding No. 17 that McAdam solved a problem long existent in the refrigerating art is Jarvis' statement that defrosting "was the biggest problem that the industry had to solve before the present-day frozen food industry could begin to travel" (R. 45).

Chamberlain, assistant chief engineer of York Corporation, denied that this was the fact and stated that "we already had very good means of defrosting, which we still use today" (R. 1020). Indeed, defrosting other than by means of water is by far the most common means. Since 1940 York, one of the largest in the industry, has used water defrosting in only 11% of its units (R. 1031-2).

These common means of defrosting are as follows:

Warm gas—in this method the refrigerating cycle is reversed and the evaporated refrigerant, which is relatively hot as it leaves the compressor, after having accomplished its purpose of absorbing heat in the cooling coils, is returned to the cooling pipes to do the work of melting the frost (R. 1018). This method is more efficient, and usually used only, if there are two or more evaporators in the refrigerating system so that the evaporated gas from one evaporator may be pumped by the compressor into the evaporator which is to be defrosted. This method of defrosting is particularly advantageous as it leaves the coils perfectly dry (R. 1024) as distinguished from water defrosting where a film of ice is frozen onto the coils when the refrigeration is started again (R. 1431, col. 2, lines 50-54). Gas defrosting takes from 10 to 30 minutes, depending on the size of the unit and the amount of frost.

Warm brine—whenever brine is used as the cooling agent it is a simple matter to circulate warm brine inside

the pipes in place of the cool brine and thus melt the frost. This is the accepted method on shipboard. Since 1943 York has installed this type of defrosting in over thirty ships for frozen cargo (R. 1021).

Warm air—air either at atmospheric temperature or heated, may be blown over the pipes by means of air ducts and dampers. Since this takes place within an enclosed unit, the warm air does not get out into the refrigerated space and thus the temperature of that space is not raised. (R. 86, 1008-9). This type of defrosting is used where the unit is conveniently located to a source of outside air and where expensive duct work is not needed (R. 1020). Defrosting will take from 10 to 30 minutes (R. 1010).

Brine spray—where more rapid defrosting is desirable, brine spray is used on the outside of the coils, which defrosts in *two to five minutes* (R. 1017), since in addition to the brine solution imparting its heat to melt the frost, the brine has a solvent action (R. 1021). This brine spray may be continuous or intermittent and is recirculated from a pan located either inside or outside the refrigerated space.

These and a great many variations of these methods of defrosting existed prior to McAdam (Refrigeration's Exs. Y, Z, AA, R. 1509-23) and are still being used extensively today (R. 1017, 1020, 1021). Jarvis' uncorroborated statement as to a "problem" has no foundation. Each method of defrosting, including water defrosting, has its own particular advantages and disadvantages with respect to any one particular job under consideration. The evidence is clear that no one particular kind of defrosting is the best for all purposes. That method which is the most efficient and the least expensive under the particular circumstances is the one which should be used. Under certain circumstances it is undoubtedly true that water is a suitable means for defrosting, but, even in the case of the much-touted use

of Refrigeration's unit during the War (see Finding 15*), the fact is that the unit "was soon found to be inadequate and was replaced by an entirely different type of apparatus" for use by the Armed Forces (R. 1051-52).

B. Increase in the Use of Water to Defrost

Refrigeration also sought and obtained a finding (No. 12*) that the art extensively adopted the system of water defrost of the McAdam patent, apparently as an indication that McAdam had solved a long existent problem.

The only evidence introduced tending to show that there had been any increase in the use of water to defrost was in connection with the growth of defendant, Refrigeration. This growth in the business of Refrigeration was due not only to efficient management and advertising but to the fact that about the time Refrigeration developed this unit, there was a tremendous growth in the frozen food industry and the resultant increase in food storage lockers of small capacities with the result that the use of small blower units increased (R. 1047). Water defrosting for these units was just as feasible as warm gas, warm air or brine. It is quite natural, therefore, that all makes of this type of unit, regardless of the method of defrosting used, should share in this increased business.

C. McAdam's Device Has Not Replaced Other Means of Defrosting

There is no evidence in the Record to support Finding No. 13* that the system of water defrost of the McAdam patent superseded other devices for defrosting. All of the types of refrigerating installations and the various methods of defrosting discussed above, which were known prior to McAdam, are still being used widely and effectively today (R. 1017, 1020, 1021).

* R. 16.

Refrigeration attempted by the introduction of testimony from three satisfied users of its Recold unit to create the impression that because these persons were more pleased with the Recold units than they were with what they had used previously, water defrosting is superior to and has replaced other methods of defrosting. But in every case, the type of refrigeration which was replaced was of the type in which the cooling pipes are strung out around the walls and ceiling of the space to be cooled. All of the reasons given for preferring the Recold unit, such as the fact that it took up less space (R. 169), or that it was unnecessary to remove the goods from the storage space when defrosting (R. 164) *are advantages which accrue from the use of a package type refrigerating unit* with the coils concentrated within a casing irrespective of how it is defrosted. That it was the package type unit which was new and better to them rather than the type of defrosting is illustrated by the testimony of one of the "satisfied users", Lawrence, who stated on cross-examination (R. 133):

"Q. In Defendant's Exhibit V you state, 'The unique system of defrosting using sweet water is accomplished in about 5 minutes' time.' When you say 'unique system' you mean that you hadn't seen one before?

"A. It was different from the ordinary or usual type of coil.

"Q. And what was the difference? How did it differ?

"A. It was a fan type fin coil in comparison with the iron pipe coil that made it unique."

The "fan type fin coil" was of course old (R. 1430, col. 1, lines 22-9; 258; Plff's Ex. 106, R. 1301; 998) and was not invented by McAdam.

None of these witnesses had any basis of experience with respect to other means of defrosting blower units. Two of the three never examined or inquired about a unit of any other manufacturer before they bought the Recold unit

(Lawrence, R. 132; Payne, R. 176), and the third stated he had had no experience with any type of blower unit other than the Recold unit (Johnson, R. 238).

It is evident that this kind of testimony has neither relevance nor competence. It means nothing with respect to supporting the McAdam "invention". It is not claimed by Refrigeration that McAdam introduced the compact type refrigerating coil (R. 246, 255). Nor are the claims of the McAdam patent based upon this idea.

The compact blower unit may have been *new* to Refrigeration and its three customers, but it was old to others connected with the refrigerating industry.

D. Surprise of Unqualified Witnesses Not Persuasive

Three of the Findings by the Court below (Nos. 8, 9 and 10, R. 15) include statements to the effect that the engineers and those skilled in the art did not believe, prior to McAdam, that water could be used to defrost at below freezing temperatures. The testimony upon which these Findings are based did not include that of any refrigeration engineer, except Refrigeration's witness Ruppright. But his testimony can not be taken seriously as a qualified witness, because he testified that water would freeze in pipes and in hose below 25 degrees even while the water was running, and would not defrost, except in a few spots, and would then refreeze (R. 146-7). Thus he denies the operability of McAdam's apparatus at temperatures below 25 degrees at which it is supposed to operate (R. 163).

Doble's unsolicited statement was that he didn't believe the thing would work when it was first presented to him (R. 279). While quite obviously a nimble and accomplished patent expert witness, Doble is certainly not a refrigerating expert and prior to this case was not familiar with the art. Prior to 1937 his only experience in refrigeration other than "that of most people" was that he invented an electrical system of defrosting for his own ice-box (R. 282). Mr. Doble had no experience as a basis for his surprise.

Ruppright, Refrigeration's only refrigerating expert, had written an article, Defendant's Ex. Z (R. 1512-6), published in 1936, in which he stated that water sprayed from a permanent header could be used to defrost at below freezing temperatures "were it not for trouble caused by water freezing in the piping during regular operation". He admitted on cross-examination that he had never tried to defrost in this manner (R. 144). Had he done so it is possible that he, too, would have found it quite simple to use a stop and drain valve as was done at Indianapolis (Plff's Ex. 22, physical), Elmira (Plff's Ex. 39, R. 1207), and Yamhill (Plff's Ex. Y-21, physical) and also later by McAdam, since this is and was common plumbing procedure whenever water piping must enter a below freezing zone (R. 431; Plff's Ex. 102, R. 1295-8).

Refrigeration also produced a Mr. C. L. Walling, a former York employee in a subordinate position, who stated that when he first heard of the Recold unit in 1938, at which time he was employed by York, he considered it unsound (R. 194), but he admitted that he "made no thorough investigation".

W. R. Tuttle, another former York employee, testified (R. 241) that Dalin, district chief engineer for York in its Los Angeles district, had stated to him during 1938 or '39 that water defrosting was an exploded idea and that York had thrown it out years ago. Dalin took the stand and stated that he did not recall ever having made such a statement and did not believe that he could have made it because to his knowledge York had not tried and discarded water defrosting (R. 981). Furthermore it was also brought out that on August 25, 1939, Mr. Dalin, before he had ever seen a Recold unit in operation, approved the purchase of one by York for resale without requiring or obtaining any guarantee from Refrigeration (Plff's Ex. 103, R. 1298; R. 982-3). If Dalin had asserted that water defrosting was an "exploded idea" he would hardly have approved the purchase of such a unit.

Finding No. 10 states that "the teachings of the published art" as well as the belief of the engineers prior to McAdam were that water could not be used for the defrosting of coils positioned within a refrigerated space maintained at a temperature below freezing. This is incorrect. Two of the prior art patents cited by York call for the use of water to defrost coils positioned within a space maintained at temperatures below the freezing point of water (Jensen & Roser, R. 1279; Wenzl, R. 1271). As to the engineers, York introduced in evidence the testimony of a dozen refrigeration engineers who *did* believe and knew by experience that water defrosting would work below freezing (*Supra*, pp. 25, 32-3, 43-5).

E. That Early Purchasers Required Guarantees of Replacement Does Not Prove Invention

Refrigeration introduced evidence that in some of its early installations it was necessary to give guarantees of satisfaction in order to sell the installations. Lawrence, Payne and Johnston testified that they were given guarantees but only Lawrence testified that he *requested* such a guarantee and that was in answer to a leading question (R. 124). It is not surprising for a young company* to give such guarantees in an attempt to obtain business, particularly when two earlier installations of Recold units had proved unsatisfactory. Mr. Jarvis testified (R. 46-7) that after making the first commercial installation in Woodland, Oregon, it was found that "we hadn't entirely solved the problem" and "it was necessary to go into the room with a blow torch and melt the ice inside of the supply pipe that had frozen." Again in connection with another installation, the first made in Los Angeles or the vicinity, Mr. Jarvis testified (R. 64):

"We encountered considerable trouble on this job because we failed to supply sufficient coverage with

* Refrigeration was formed in 1932 (R. 41) but the McAdam development did not come until 1937 and these sales were made in 1939 and 1940 (R. 123, 161, 236).

our spray except on the fin section of the coil and did not supply the water spray over the return bends assuming, I guess, because they were out of the air-stream they would not frost, and consequently we had to take that coil out and build another coil with sprays over the return bends before the job was entirely satisfactory.”

With this poor record of engineering and installation practice it is a wonder that more customers did not request and secure guarantees of satisfaction.

F. Sales of the Recold Unit Do Not Support the Alleged Invention.

In an attempt to prove commercial success in order to bolster the claim of invention for the McAdam patent, Refrigeration offered evidence that its 1945 gross sales were about one million dollars, forty percent of which was business in “water defrost coils” (R. 1093). This figure, however, is completely without significance to prove commercial success of the McAdam invention because the “water defrost coil” is not the apparatus patented by McAdam but is merely an unpatented part which anyone is free to sell; and because there are no figures as to the number of installations of water defrosted units in combination with a refrigerated space maintained below freezing, the alleged McAdam invention. Indeed, the figures given for 1945 show that even Refrigeration, which manufactures nothing but coils (R. 41) and has been pushing water defrosting as much as it could for seven years, sold many more coils apparently to be defrosted *by other means than by water* since only 40% of its sales were “water defrost coils”.

But quite apart from the above, commercial success, to be any indication of invention, must be the crowning glory on the story of a long felt want, caused by a problem incapable of solution for years, and an immediate and enthusiastic reception by a waiting public. These conditions do not exist in the present case. As already pointed out, there were many methods of defrosting, all of which are still used, and

used much more commonly even today than the water defrosting (R. 1008, 1014, 1017). There is absolutely no evidence in the record of the problem remaining unsolved with failures strewn along the wayside. On the contrary, it is clear from the prior uses previously discussed that water defrosting was known and was successfully used. And such success as water defrosting has had has not been due to the inventive character of the development, but to the fact that about the time of the filing of McAdam's application small blower units became more popular because of the increased use of frozen foods and smaller storage rooms. In some of such installations, particularly where there was only one evaporator so that gas defrosting was inefficient, water defrosting was handy and was adopted (R. 1024, 1031-2).

The most that can be said is that Refrigeration was early in merchandising a compact blower type unit having a method of defrosting, which had been known and used many years before, but which has been useful in view of the current commercial situation. As a recompense for Refrigeration being wide awake and progressive it has made substantial sales. But its business acumen certainly cannot be used as an argument for supporting the inventive character of the McAdam apparatus.

And as clearly recognized by this Court in *Grayson Heat Control v. Los Angeles* (1943), 134 F. 2d 478, at page 481:

“Lack of novelty and lack of invention being clearly shown, no significance attaches to the fact, if it be a fact, that utility resulted and commercial success followed from what Grayson did.”

IV. York Does Not Infringe the McAdam Patent

It is axiomatic that in order to infringe a claim of a patent one must make, use or sell *all* of the elements of the claim. *Simons v. Davidson Brick Co.* (9 Cir., 1939), 106 F. 2d 518 at page 523:

“. . . The omission of an element of the combination avoids infringement, (*Rowell v. Lindsay*, 113

U. S. 97, 5 S. Ct. 507, 28 L. Ed. 906; *Black Diamond Coal Mining Co. v. Excelsior Coal Co.*, 156 U. S. 611, 15 S. Ct. 482, 39 L. Ed. 553; *Magnavox Co. v. Hart & Reno*, 9 Cir., 73 F. 2d 433, *supra*), unless an equivalent is supplied.”

There are no Findings of Fact as to the apparatus which York sold, or as to any fact basis for infringement by York. There is merely the bare Conclusion of Law that claim 13 is infringed (R. 23).

The evidence with respect to the apparatus which York sold is contained in a Stipulation printed on pages 1527-29 of the Record (Dft's Ex. CC).

What the stipulation shows (R. 1527-29) is that York sold certain “refrigerating units” (R. 1528), the structure of these “standard sectional coil units” being illustrated and described. The stipulation also provides that York supplied “water defrosting connections with its standard sectional coil unit, where the unit was installed to maintain a temperature well below freezing in the refrigerated space” (R. 1528). But there is no proof that York *made, used or sold* the “refrigerated space” which is specified in each claim except claims 9 and 12, and such claims are clearly invalid. The charge here is of direct, not contributory, infringement. Refrigeration must prove that York has made, used or sold *each* element of the claims. Refrigeration has the burden of proving that York made, used or sold not only a water defrosted refrigerating unit, but also *a refrigerated space kept continuously below freezing*. There is absolutely no such proof and Refrigeration has not sustained its burden.

There is also no proof that York's water defrosted commercial installations use “finned” coils, called for in claims 10 and 11, or an electrically operated valve, called for in claim 14.

York does not make, use or sell all of the elements of the patented combination and therefore it does not infringe the McAdam patent.

V. Refrigeration Has Misused the McAdam Patent and Should Be Barred from Relief.

In the event that this Court finds the McAdam patent invalid or not infringed then it will be unnecessary to consider the question of Refrigeration's misuse of the patent, but if the patent is found to be valid and infringed, then Refrigeration is barred from enforcing the patent because of its "unclean hands" arising from a misuse of the patent. Proof of the misuse was first brought out during the cross-examination at the trial of Jarvis, vice president and general manager of Refrigeration. At the close of its case and prior to rebuttal by Refrigeration, York moved to amend its pleadings to include this issue, which motion was denied (R. 1053-1063) in spite of the liberal rules allowing amendments to pleadings, and in spite of the Court's right *sua sponte* to consider a defense of "unclean hands."

It is clear from the cases, however, that it is not necessary for this issue to be raised by the pleadings and that at any time the Court may act *sua sponte* and deny relief. A recent case to this effect is *Frank Adam Electric Co. v. Westinghouse Electric Mfg. Co.*, (8 Cir., 1945) 146 F. 2d 165, where it was stated at page 167:

"* * * The rule is firmly established that whenever in the course of the proceeding the court is informed in any way that the plaintiff is without clean hands, that it is using the monopoly of the patents in suit to restrain competition on unpatented things in violation of law, the court should inquire into the facts of its own accord, and if it finds the charge to be true relief should not be granted."

That Refrigeration is misusing the McAdam patent is established by the admissions of Jarvis and Refrigeration's patent expert Doble. Without contradicting and thus impeaching its own witnesses there is no evidence which Refrigeration could introduce which would alter this situation. All the facts which are necessary for a determination of this

issue are now in this Record and it is therefore within the province of this Court to consider and apply the doctrine of "unclean hands."

The McAdam patent is a combination patent. Each claim of the patent, if valid, covers only the combination of *all* of the elements recited in that claim. Any one element or any combination of elements *less* than *all* of the elements recited in the claim is, therefore, unpatented. This was clearly stated in *Mercoïd Corp. v. Mid-Continent Co.*, 320 U. S. 661 (1944) at page 667:

"* * * The patent is for a combination only. Since none of the separate elements of the combination is claimed as the invention, none of them when dealt with separately is protected by the patent monopoly. *Leeds & Catlin Co. v. Victor Talking Machine Co.* (No. 1), 213 U. S. 301, 318. Whether the parts are new or old, the *combination* is the invention and it is *distinct* from any of them. See *Schumacher v. Cornell*, 96 U. S. 549, 554; *Rowell v. Lindsay*, 113 U. S. 97, 101 * * *."

All of the claims of the McAdam patent, except claims 9 and 12, include as an element of the combination "a refrigerated space." By the admission of Refrigeration's patent expert, Doble, this refrigerated space is an important element of the claims because it imports into the claims from the specification of the patent the fact that the defrosting device is used in or in connection with a refrigerated space below the freezing point of water (R. 277-8). Without this element, claims 9 and 12 are obviously anticipated by the prior uses even assuming, contrary to the facts, that the prior use devices were not used below freezing.

Refrigeration does not install the refrigerating units which it sells (R. 79-81) and it does not sell any "refrigerated space." Its sales consist of the blower type refrigerating units alone and not "in combination with a refrigerated space." Nor does Refrigeration sell the supply and drain conduits (R. 79), which are admittedly important elements of the patented combination (R. 221).

It follows then that the Recold unit sold by Refrigeration does not include *all* of the elements of the combination. The unit which it sells is therefore an unpatented product.

Refrigeration's counsel admitted at the trial that:

“The evidence clearly shows that perhaps we are selling less than we are entitled to under the combination and giving a license to use the rest of it” (R. 1055).

Refrigeration misuses the McAdam patent in at least two ways:

a) Refrigeration and its licensees, by law, impliedly grant a license under the McAdam patent to all who purchase the unpatented water defrosting unit from them. That Refrigeration intended that such a license be granted is shown by the fact that it has never sued for infringement any user or seller of a water defrosting device which was purchased from it or from one of its licensees, but it has sued for infringement non-licensed manufacturers and their customers (R. 89). For example, so long as York purchased the unpatented Recold units from Refrigeration and resold them, Refrigeration did not sue York for infringement. Now, however, that York itself manufactures and sells water defrosting devices it has been charged with infringement by Refrigeration.

By this course of conduct, Refrigeration is illegally using the McAdam patent to control competition in an unpatented product by attempting to compel the trade to purchase from it the unpatented device, that is, the Recold unit alone without conduits and without the refrigerated space.

b) There is no proof that York uses or sells its water defrosting device in combination with “a refrigerated space.” Since the patented combination includes as an element “the refrigerated space,” which York does not sell, York sells an unpatented product and is not an infringer. At most it can be charged to be only a contributory infringer. But the mere bringing of a suit against a contributory infringer is a misuse of the patent by attempting to place an

illegal restraint upon an unpatented product. See the *Mercoïd* cases discussed below, and *Stroco Products, Inc. v. Mullenbach*, 67 USPQ 168, 170 (D. C. S. D. Cal., 1944), where the Court found:

“1. Plaintiff is, by its action against defendants for contributory infringement, attempting to use its patent to secure a monopoly on unpatented portions of the complete combination covered by the claims of its patent.”

Prior to the cases of *Mercoïd Corp. v. Mid-Continent Co.*, 320 U. S. 661 (1944), and *Mercoïd Corp. v. Honeywell Co.*, 320 U. S. 680 (1944), the above misuses of patents were recognized and condemned where a patent for a machine or process was being used to secure a partial monopoly in supplies or unpatented materials used in the process or by the machine.* The *Mercoïd* cases merely extended the misuse doctrine to include those cases in which “the unpatented * * * device is itself an integral part of the structure embodying the patent” (320 U. S. 665), which is precisely the case here.

In the *first Mercoïd* case, *Mid-Continent*, the patent owner, exclusively licensed Minneapolis-Honeywell, a manufacturer of less than the entire combination, who in turn sub-licensed various other manufacturers of less than the entire patented combination. Neither *Mid-Continent* nor *Minneapolis-Honeywell* installed the entire combination, nor did either sell the entire combination, but the latter did sell a portion of the entire patented combination. *Mid-Continent* sued *Mercoïd* for contributory infringement, because of its sale of *part* of the patented combination. The Supreme Court held this to be a misuse of the patent and stated (320 U. S. 661, 667):

“* * * the competition which is sought to be controlled is not competition in the sale of the patented

* *Carbice Corp. v. American Patents Corp.*, 283 U. S. 27 (1931); *Leitch Mfg. Co. v. Barber Co.*, 302 U. S. 458 (1938); *Morton Salt Co. v. G. S. Suppiger Co.*, 314 U. S. 488 (1942); *B. B. Chemical Co. v. Ellis*, 314 U. S. 495 (1942).

assembly but merely competition in the sale of the unpatented thermostatic controls. The patent is employed to protect the market for a device on which no patent has been granted."

The argument was made that the portion of the combination sold by both Minneapolis-Honeywell and Mercoid was the "heart of the invention," which fact should justify protection of the patentee and its licensees. But the Supreme Court rejected this contention, pointing out that "the patent is employed to protect the market for a device on which no patent has been granted" (at p. 667). It further said (at p. 667):

"That result may not be obviated in the present case by calling the combustion stoker switch the 'heart of the invention' or the 'advance in the art'. The patent is for a combination only. Since none of the separate elements of the combination is claimed as the invention, none of them when dealt with separately is protected by the patent monopoly * * * Whether the parts are new or old, *the combination is the invention and it is distinct from any of them.*"

The *second Mercoid* case (320 U. S. 680) involved precisely the same situation as to another combination patent. The facts are perhaps closer to our own case in that the intermediate step of a license from the patent holder to an exclusive licensee was not involved. Also, this was a declaratory judgment suit in which the defendant countered with a charge of infringement as well as contributory infringement. The Court stated (at p. 684):

"* * * The fact that an unpatented part of a combination patent may distinguish the invention does not draw to it the privileges of a patent. That may be done only in the manner provided by law. However worthy it may be, however essential to the patent, *an unpatented part of a combination patent is no more entitled to monopolistic protection than any other unpatented device.* For as we pointed out in *Mercoid v. Mid-Continent Investment Co.*, *supra*, *a patent on a combination is a patent on the assembled*

or functioning whole, not on the separate parts. The legality of any attempt to bring unpatented goods within the protection of the patent is measured by the anti-trust laws not by the patent law. For the reasons stated in *Mercoïd v. Mid-Continent Investment Co.*, supra, the effort here made to control competition in this unpatented device plainly violates the anti-trust laws, even apart from the price-fixing provisions of the license agreements. * * *

The evil which is condemned in both cases is the attempt to use a combination patent so as to give an economic advantage in the market to an unpatented product which is itself an integral part of the combination.

As pointed out above, Refrigeration is illegally using its combination patent to induce purchasers to buy from it or from its licensees a device which is admittedly less than the entire combination and, therefore, an unpatented product. Refrigeration is misusing its patent and should be barred from recovery.

VI. Costs and Attorney's Fees Should Not Be Allowed.

Paragraphs 7 and 9 of the Judgment herein (R. 25-6) award to Refrigeration reasonable attorney's fees and costs.* In its Points on appeal (No. 20, R. 1113) York stated that the District Court erred in not holding that this action was filed with justification in law and in fact.

Here York sought a declaratory judgment as to the invalidity of fourteen claims of the McAdam patent and *thirteen of these claims were declared invalid.* It would appear that there is a question as to which party prevailed. Certainly it indicates that the action was instituted with justification in law and in fact.

* Costs in the amount of \$744.70 were taxed and passed to judgment (R. 37), but the matter of the attorney's fees was held in abeyance pending the determination thereof by a Special Master (R. 37). The reference to a Master was stayed pending the appeal by paragraph 10 of the Judgment (R. 26).

As amended August 1, 1946, R. S., § 4921, 35 USCA, § 70 states in part (Appendix, p. 79) :

“ . . . The court may in its discretion award reasonable attorney's fees to the prevailing party upon the entry of judgment on any patent case.”

As interpreted by the courts, the above quoted portion of the statute relating to the granting of attorney's fees applies only when the action by the plaintiff is absolutely unwarranted or unreasonable.

In *Lincoln Electric Co. v. Linde Air Products Co.* (D. C. N. D., Ohio, 1947), 75 USPQ 267, a suit by plaintiff on a patent had been dismissed on a motion for summary judgment based on the misuse of the patent. In denying a motion by defendant for reasonable attorney's fees, the Court said at pages 267-8:

“The request for attorneys' fees is based on a recent enactment of Congress, Title 35 U. S. C. 70. * * * It is apparent from the wording of the statute and its history that an award of attorneys' fees should not be made in an ordinary case. The Court is invested with discretionary power where it is necessary to prevent gross injustice. The case at bar presents a situation which is not unusual in patent matters. This court finds no special circumstances of gross injustice. * * * This court does not consider that the action by the plaintiff was absolutely unwarranted or unreasonable. Since the award asked by the defendant is contrary to long established practice, a clear showing of the conditions indicated in the statute must be made to entitle the applicant to the relief sought. The circumstances and conditions surrounding the parties in this litigation do not warrant an award of attorneys' fees to the prevailing party.”

This interpretation of the statute is in line with a long line of decisions interpreting a similar provision in the copyright laws (35 Stat. 1084, 17 USCA, § 40). Judge Yankwich said in *Cain v. Universal Pictures Co.* (D. C. S. D., Cal., 1942), 47 F. Supp. 1013, at page 1019:

“The allowance of attorney’s fees in copyright cases to the prevailing party is discretionary. 17 U. S. C. A., § 40; *Marks v. Leo Feist, Inc.*, 2 Cir., 1932, 8 F. 2d 460, 461; *Buck v. Bilkie*, 9 Cir., 1933, 63 F. 2d 447. They should not be awarded unless equity considerations exist which call for the penalization of the losing party.”

Because York prevailed as to thirteen of the fourteen claims of the McAdam patent, the District Court also erred in awarding costs to Refrigeration. A more equitable disposal of the matter would have been to award thirteen-fourteenths of the costs to York, or at the most to have awarded costs to neither side.

Conclusion

The District Court’s determination of validity and infringement of claim 13 should be reversed and its holding of invalidity of the remaining claims of the McAdam patent should be sustained; Refrigeration’s cross-claim should be dismissed; Refrigeration should be adjudged to have misused the McAdam patent and be therefore barred from enforcing it; and the prayers of York’s complaint should be granted.

MESERVE, MUMPER & HUGHES and
H. CALVIN WHITE,

By SHIRLEY E. MESERVE,

Attorneys for YORK CORPORATION,
Suite 615, 555 South Flower Street,
Los Angeles 13, California.

Of Counsel

ALEXANDER C. NEAVE
CLARENCE D. KERR
WILLIAM J. O’HEARN, JR.

January 29, 1948.

APPENDIX

Judicial Code Section 274d; 28 USCA, §400:

“(1) In cases of actual controversy (except with respect to Federal taxes) the courts of the United States shall have power upon petition, declaration, complaint, or other appropriate pleadings to declare rights and other legal relations of any interested party petitioning for such declaration, whether or not further relief is or could be prayed, and such declaration shall have the force and effect of a final judgment or decree and be reviewable as such.

“(2) Further relief based on a declaratory judgment or decree may be granted whenever necessary or proper. The application shall be by petition to a court having jurisdiction to grant the relief. If the application be deemed sufficient, the court shall, on reasonable notice, require any adverse party, whose rights have been adjudicated by the declaration, to show cause why further relief should not be granted forthwith.

“(3) When a declaration of right or the granting of further relief based thereon shall involve the determination of issues of fact triable by a jury, such issues may be submitted to a jury in the form of interrogatories, with proper instructions by the court, whether a general verdict be required or not.”

R. S. §4886; 35 USCA, §31:

“Any person who has invented or discovered any new and useful art, machine, manufacture, or composition of matter, or any new and useful improvements thereof, or who has invented or discovered and asexually reproduced any distinct and new variety of plant, other than a tuber-propagated plant, not known or used by others in this country, before his invention or discovery thereof, and not patented or described in any printed publication in this or any

foreign country, before his invention or discovery thereof, or more than one year prior to his application, and not in public use or on sale in this country for more than one year prior to his application, unless the same is proved to have been abandoned, may, upon payment of the fees required by law, and other due proceeding had, obtain a patent therefor.”

R. S. §4888; 35 USCA, §33:

“Before any inventor or discoverer shall receive a patent for his invention or discovery he shall make application therefor, in writing, to the Commissioner of Patents, and shall file in the Patent Office a written description of the same, and of the manner and process of making, constructing, compounding, and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art or science to which it appertains, or with which it is most nearly connected, to make, construct, compound, and use the same; and in case of a machine, he shall explain the principle thereof, and the best mode in which he has contemplated applying that principle, so as to distinguish it from other inventions; and he shall particularly point out and distinctly claim the part, improvement, or combination which he claims as his invention or discovery. The specification and claim shall be signed by the inventor. No plant patent shall be declared invalid on the ground of non-compliance with this section if the description is made as complete as is reasonably possible.”

R. S. 4921; 35 USCA, §70:

“The several courts vested with jurisdiction of cases arising under the patent laws shall have power to grant injunctions according to the course and principles of courts of equity, to prevent the violation of any right secured by patent, on such terms as the court may deem reasonable; and upon a judgment being rendered in any case for an infringement the complainant shall be entitled to recover general damages which shall be due compensation for

making, using, or selling the invention, not less than a reasonable royalty therefor, together with such costs, and interest, as may be fixed by the court. The court may in its discretion award reasonable attorney's fees to the prevailing party upon the entry of judgment on any patent case.

“The court is hereby authorized to receive expert or opinion evidence upon which to determine in conjunction with any other evidence in the record, due compensation for making, using, or selling the invention, and such expert or opinion evidence is hereby declared to be competent and admissible subject to the general rules of evidence applicable thereto.

“The court shall assess said damages, or cause the same to be assessed, under its direction and shall have the same power to increase the assessed damages, in its discretion, as is given to increase the damages found by verdicts in actions in the nature of actions of trespass upon the case; but recovery shall not be had for any infringement committed more than six years prior to the filing of the complaint in the action. And it shall be the duty of the clerks of such courts within one month after the filing of any action, suit, or proceeding arising under the patent laws to give notice thereof in writing to the Commissioner of Patents, setting forth in order so far as known the names and addresses of the litigants, names of the inventors, and the designating number or numbers of the patent or patents upon which the action, suit, or proceeding has been brought, and in the event any other patent or patents be subsequently included in the action, suit, or proceeding by amendment, answer, cross bill, or other pleading, the clerk shall give like notice thereof to the Commissioner of Patents, and within one month after the decision is rendered or a judgment issued the clerk of the court shall give notice thereof to the Commissioner of Patents, and it shall be the duty of the Commissioner of Patents on receipt of such notice forthwith to endorse the same upon the file wrapper of the said patent or patents, and to incorporate the same as a part of the contents of said file or file wrapper.”

35 Stat. 1084; 17 USCA, §40:

“In all actions, suits, or proceedings under this title, except when brought by or against the United States or any officer thereof, full costs shall be allowed, and the court may award to the prevailing party a reasonable attorney’s fee as part of the costs.”